ALOUETTE TOOL COMPANY LTD.

YOUR SOURCE FOR QUALITY SWISS TURN TOOLING

2020 Catalog

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Est. 1973

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SARIX

3D MICRO EDM MACHINING

Sarix Micro EDM Machines take the difficulty out of High-Speed 3D Micro Milling and Micro EDM Drilling opening new horizons

3D Micro Milling

- 3D Micro Milling of complex forms with radius corner's down to 3µm (.003mm) and bottom floor level control to 2µm (.002mm)
- Reach machining features of 10µm (.010mm) with an Ra of 0.05µm (.0005mm)
- A wire-dressing option allows for electrode diameters as small as 0.015mm
- Electrode collets available in manual or automatic feed, as well as electrode rotation indexing collets for dressing electrode shapes/geometries
- 3D Micro Milling configuration available in enclose or table-top machines

Micro EDM Drilling

- Through Sarix's No-Contact Electrode Micro Drilling, machines can drill holes of 0.1mm diameter to 15mm deep with +/- .5µm (.0005mm) tolerance
- Straight Hole Deviation below 5µm
- Hole depth/diameter ratio up to 150:1
- Perfect deep hole drilling motion control specially developed for the carbide drilling needs
- Micro Drilling Configuration available in enclosed or table-top machines

The SARIX technology is applied on a very large applications range: engine injectors, spinnerets, fiber-optical connectors, micro-mechanic machining, fine machining for the watch and micro-electronic industries, micro-mold making, stamping tools, and all other fields where the upmost precision machining is required.

Please contact Alouette Tool directly for more information regarding Sarix Technology

PERFECT ROUND HOLES

CONCENTRIC & ACCURATE HOLES

HOLE TAPER CONTROLLED

NO ANGLE LIMIT

NO BURNING EFFECT

NO MATERIAL ALTERATION

WITHOUT ENTRANCE AND EXIT DEFORMATION

HIGH PRODUCTIVITY QUALITY

HIGH QUALITY SURFACE

HIGH PRECISION FINISHING

3D µEDM

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THE BEST MICRO EROSION TECHNOLOGY SINCE **1993**

SARIX

3D Micro EDM Milling

NEW SX80 - hpm

MICRO EROSION HIGH PRECISION MACHINE
TABLE TOP - SO EASY and SO PERFORMING

Micro EDM Drilling & 3D Micro EDM Milling

MICRO MECHANICS
MICRO MOLD
AUTOMOTIVE
TEXTILE
MEDICAL
AEROSPACE

- The **SX80-hpm** machine is the ideal solution for the production environment with small batch size and fast changing machining jobs. Its capabilities brings new innovative technological features for the **high precision 3D Micro machining** applications needs.
- The **NEW** compact **SX-CNC** multi-axis controller offers the latest performance in **Micro EDM Machining** with the optimized functions for micro drilling and micro milling programming and a clear monitoring of the machining process.
- **SX-HMI**, "On-board" interface on the table top machine. Easy user friendly color touch screen panel with joystick handbox.
- **SX-DA**, dielectric unit integrated under table of the machine, free access for maintenance and control. The flushing controls are easily and quickly accessible on the front of the machine.
- **SX-A344L**, High precision rotating spindle with automatic electrode refeeding and wear compensation control for continuous unlimited hole production.
- **SX-BTD**, **High Speed Micro EDM drilling** Technology with breakthrough detection control.
- The high performance **SARIX Micro Pulse Shape EDM** generator **SX-MPS**, is improved on the tabletop **SX80-hpm** with the integration of the **PULSAR** generator, offering new opportunities for faster, smaller, deeper and more precise perfect holes and 3D cavities.
- **Micro EDMing** machining technology using solid and tube electrode from **45 µm**.
- **Micro Holes**, high precision micro round and shape holes down to **20 µm** to 3.0 mm.
- High surface finishing quality down to **Ra 0.10** and **Ra 0.05** with the **Micro Fine Pulse Shape** generator **SX-MFPS**.
- High precision positioning accuracy and drilling depth control up to **±1 µm**.
- **SX-MDH**, Micro Deep Hole drilling device for **0.10 mm** holes with tolerance of **±5 µm** on depth ratio upto 100 - 150 time the diameter.
- **Industry 4.0 - smart production** and automation process integration capability.

TECHNICAL SPECIFICATIONS

Tabletop machine	SX80-hpm
Type	High Precision Micro EDM Machine
Work table	L 510 mm l 270 mm
Travel X axis	300 mm
Travel Y axis	150 mm
Travel Z axis	200 mm
Z axis feed rate	1200 mm/min
X-Y axis feed rate	1200 mm/min
Precision of positioning	±2.0 µm
Resolution	0.1 µm
Table load	~ 25 kg
Net weight	~ 650 kg
Dimensions Machine Table bench	 L = 850 x l = 905 x h = 1400 mm L = 1800 x l = 800 x h = 650 mm

	SX-MPS	SX-HPS
Generator	**MICRO PULSE SHAPE**	**HIGH PULSE SHAPE**
Freerun voltage	60 ÷ 255 V	fixed voltage
Frequency	1÷250 pos.	1÷100 pos.
Current pulse	1÷200 pos.	1÷200 pos.
Dimensions	135 x 110 x 500 mm	
Control Unit	**SX-CU**	
SX-CU integrated in the electrical cabinet on the table		
Power supply	400 V - 3 Ph /50 Hz	
Nominal power	2 KVA	
Dielectric Unit	**SX-DA**	
Capacity	75 liters	
Dielectric	deionised water or dielectric oil	
Dimensions	550 x 1200 x 600 mm	

Our specifications are subject to any change, giving you a continous technological advantage.

TYPICAL CONFIGURATION
SX80-hpm High Precision Micro EDM machine

SX80-hpm machine including **SX-CU** CNC & **SX-MPS**, Micro Pulse Shape Generator
Axis configuration X,Y,Z (A,B,C additional axis - optional)
Virtually up to 16 axis control with 4 axis on simultaneous motion

- **SX-Icon Editor**, free programming PC software with ISO and G code.
- **SX-KBS**, Knowledge Base - Micro EDM Technology data base PC software.
- **SX-SLS-DT**, Self-learning and search technology software for drilling.
- **SX-PL**, Multi-axis-erosion software X-Y-Z axis with extended planetary-orbiting function.
- **SX-DA**, Dielectric unit with 1 µm filtering with conductivity and temperature control for deionised water or dielectric oil. *Fire extinguishing system for Dielectric Oil (option).*
- **SX-HP**, High pressure flushing unit up to 70 bars.
- **SX-ROT**, High precision rotating spindle for SP02/03 collet with 3R Macro chuck.
- **SX-PG-M**, Precise ceramic guide height adjustment with retractable guide holder.

SX-CU CNC CONTROL UNIT

- **SX-CU**, controller with enhanced interaction and process visualisation with **free and unlimited program capacity and Micro EDM Technology settings**.
- **SX-HMI**, "On board" user friendly 12" color Touch Screen interface with USB & LAN.

OPTIONS

- **SX-MFPS** and **SX-UFPS**, Micro Fine Pulse Shape and Ultra Fine Pulse Shape generators for Micro Fine and ultrafine finishing.
- **SX-HPS**, High Power Pulse Shape generator for higher stock removal.
- **SX-A344-L**, High precision rotating spindle with automatic electrode refeeding and wear compensation with through flushing function (C function optional).
- **SP06** & **SP08** collets for SX-A344-L automatic spindle down to **45 µm**.
- **SP-MDC**, Multi diameter automatic refeeding collet 0.2 - 1.0 mm and 0.5 - 1.5 mm.
- **SX-Revolver**, Automatic electrodes changer for SX-A344-L with 300 or 600 mm cartridge of 8 electrodes.
- **SX-C-ROT**, High precision rotating spindle for SP02/03 collet with C-indexing function.
- **SX-TH**, "Tilting Head" for taper holes with SX-A344-L spindle using the collet SP08.
- **SX-R-AB100D**, High precision rotary programmable A/B axis with direct axis control and universal 3R & Erowa chuck.
- **SX-AB100C**, High precision single or double indexable and programmable A/B-axis.
- **SX-ARIANNE**, Electrode wire EDM grinding device for the automatic micro electrode production for round and shape micro holes down to 10 µm.
- **SX-Micrometer**, Laser for measurement of diameter and profile of micro electrodes.
- **SX-MDH**, Micro Deep Hole Drilling device for diameter 0.10 mm holes with tolerance of **± 5 µm** on depth ratio upto 100 - 150 time.
- **SX-3D-Micro EDM Milling CAM**, software for 3D Micro EDM Milling machining.
- **SX-DNC**, Sequencer software for dxf file and unlimited programmable number of holes.
- **SX-EAD**, Electrode Automatic Distributor device.

ACCESSORIES

- **SP02**, High precision manual collet.
- High precision ceramic guide **SG01-SG03-SG08** and specials series.
- High precision solid carbide electrodes tubes. down to **90 µm** and blank electrodes down to **45 µm**.
- Brass & Copper single holes and coreless electrodes tubes.

Tooling, fixtures, microscopes, instruments, filters...

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SARIX F-SX80-hpm-en-18

PERFECT ROUND HOLES

CONCENTRIC & ACCURATE HOLES

HOLE TAPER CONTROLLED

NO ANGLE LIMIT

NO BURNING EFFECT

NO MATERIAL ALTERATION

WITHOUT ENTRANCE AND EXIT DEFORMATION

HIGH PRODUCTIVITY QUALITY

HIGH QUALITY SURFACE

HIGH PRECISION FINISHING

3D µEDM

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SARIX

3D Micro EDM Milling

SX100 - hpm

3D HIGH PRECISION MICRO EROSION MACHINE

3D Micro EDM Milling & Micro EDM Drilling

SX-MPS
Micro Pulse Shape generator

MICRO MECHANICS
MICRO MOLD
AUTOMOTIVE
TEXTILE
MEDICAL
AEROSPACE

SX-HMI
Touch screen interface

- The closed cell configuration of the **SX100-hpm** machine suits perfectly the high production line as well as any dedicated high precision machining. Its efficiency brings innovative "multiaxis-motion" features for the **high precision 3D Micro machining** requirements.
- The integrated cell compact **SX-CNC** multiaxis controller gives the latest performance in **Micro EDM Machining** with the optimized functions for the **3D Micro EDM Milling** programming.
- **SX-HMI**, "On-board" trolley console interface easy user friendly with color touch screen panel and joystick hand box along with the monitoring of the entire machining process.
- 3 sides wide open access machine with safety operator protection and setting mode access.
- **SX-DA**, free accessible from side, dielectric unit for maintenance and control. Machine side flushing visual for the various settings valves.
- **SX-A344L**, high precision rotating spindle with automatic electrode refeeding and wear compensation control for continuous unlimited production. The **SP06** collet on the SX-A344L spindle can use electrodes down to **45 µm**.
- The high performance **SARIX Micro Pulse Shape EDM** generator **SX-MPS**, is improved on the closed cell **SX100-hpm** with the integration of the **PULSAR** generator, offering new opportunities for faster, smaller, deeper and more precise perfect holes and 3D cavities.
- **Micro EDMing** machining technology using solid and tube electrode from **45 µm**.
- **Micro Holes**, high precision micro round and shape holes down to **20 µm** to 3.0 mm.
- High surface finishing capability down to **Ra 0.10** and **Ra 0.05** with the **Micro Fine Pulse Shape** generator **SX-MFPS** and with the **Micro Ultra Fine Pulse Shape** generator **SX-UFPS** for the **3D Micro EDM Milling**.
- High precision positioning accuracy and drilling depth control up to **±1 µm**.
- **SX-MDH**, Micro Deep Hole drilling device for **0.10 mm** holes with tolerance of **±5 µm** on depth ratio upto 100 - 150 time.
- **Industry 4.0 - smart production** and automation process integration capability.

TECHNICAL SPECIFICATION

Closed cell machine	SX100-hpm
Type	3D High Precision Micro EDM Machine
Work table	L 510 mm l 270 mm
Travel X axis	300 mm
Travel Y axis	150 mm
Travel Z axis	200 mm
Z axis feed rate	1200 mm/min
X-Y axis feed rate	1200 mm/min
Precision of positioning	±2.0 µm
Resolution	0.1 µm
Table load	~ 25 kg
Net weight	~ 1000 kg
Dimensions Machine	L = 1200 x l = 1200 x h = 2000 mm

	SX-MPS	SX-HPS
Generator	**MICRO PULSE SHAPE**	**HIGH PULSE SHAPE**
Freerun voltage	60 ÷ 255 V	fixed voltage
Frequency	1÷250 pos.	1÷100 pos.
Current pulse	1÷200 pos.	1÷200 pos.
Dimensions	135 x 110 x 500 mm	
Control Unit	**SX-CU**	
SX-CU integrated in the electrical cabinet on the table		
Power supply	400 V - 3 Ph /50 Hz	
Nominal power	2 KVA	
Dielectric Unit	**SX-DA**	
Capacity	75 liters	
Dielectric	deionised water or dielectric oil	
Dimensions	550 x 1200 x 600 mm	

Our specifications are subject to any change, giving you a continous technological advantage.

TYPICAL CONFIGURATION
SX100-hpm 3D High Precision Micro EDM machine

SX100-hpm machine including **SX-CU** CNC & **SX-MPS**, Micro Pulse Shape Generator
Axis configuration X,Y,Z (A,B,C additional axis - optional)
Virtually up to 16 axis control with 4 axis on simultaneous motion

- **SX-Icon Editor**, free programming PC software with ISO and G code.
- **SX-KBS**, Knowledge Base - Micro EDM Technology data base PC software.
- **SX-SLS-DT**, Self-learning and search technology software for drilling.
- **SX-PL**, Multi-axis-erosion software X-Y-Z axis with extended planetary-orbiting function.
- **SX-DA**, Dielectric unit with 1 µm filtering with conductivity and temperature control for deionised water or dielectric oil. *Fire extinguishing system for Dielectric Oil (option).*
- **SX-HP**, High pressure flushing unit up to 70 bars.
- **SX-A344-L**, High precision rotating spindle with automatic electrode refeeding and wear compensation with through flushing function (C function optional).
- **SP06** or **SP08**, Collets for SX-A344-L automatic spindle down to **45 µm**.
- **SX-3D Micro EDM Milling CAM**, Software for 3D Micro EDM Milling machining.

SX-CU CNC CONTROL UNIT

- **SX-CU**, controller with enhanced interaction and process visualisation with **free and unlimited program capacity and Micro EDM Technology settings**.
- **SX-HMI**, "On board" user friendly12" color Touch Screen interface with USB & LAN

OPTIONS

- **SX-MFPS** and **SX-UFPS**, Micro Fine Pulse Shape and Ultra Fine Pulse Shape generators for Micro Fine and ultrafine finishing.
- **SX-HPS**, High Power Pulse Shape generator for higher stock remova.
- **SX-ROT**, High precision rotating spindle for SP02/03 collet with 3R Macro chuck.
- **SX-PG-M**, Precise ceramic guide height adjustment with retractable guide holder.
- **SP12**, Collet for SX-A344-L automatic spindle down to **30 µm** solid carbide electrodes.
- **SP-MDC**, Multi diameter automatic refeeding collet 0.2 - 1.0 mm and 0.5 - 1.5 mm.
- **SX-Revolver**, Automatic electrodes changer for SX-A344-L with 300 or 600 mm cartridge of 8 electrodes.
- **SX-C-ROT**, High precision rotating spindle for SP02/03 collet with C-indexing function.
- **SX-TH**, "Tilting Head" for taper holes with SX-A344-L spindle using the collet SP08.
- **SX-R-AB100D**, High precision rotary programmable A/B axis with direct axis control and universal 3R & Erowa chuck.
- **SX-AB100C**, High precision single or double indexable and programmable A/B-axis.
- **SX-ARIANNE**, Electrode wire EDM grinding device for the automatic micro electrode production for round and shape micro holes down to 10 µm.
- **SX-Micrometer**, Laser for measurement of diameter and profile of micro electrodes.
- **SX-MDH**, Micro Deep Hole Drilling device for 0.10 mm holes with tolerance of **± 5 µm** on depth ratio upto 100 - 150 time.
- **SX-DNC**, Sequencer software for dxf file and unlimited programmable number of holes.
- **SX-EAD**, Electrode Automatic Distributor device.

ACCESSORIES

- **SP02**, High precision manual collet
- High precision ceramic guide **SG01-SG03-SG08** and specials series
- High precision solid carbide electrodes tubes down to **90 µm** and blank electrodes down to **45 µm**
- Brass & Copper single holes and coreless electrodes tubes

Tooling, fixtures, microscopes, instruments, filters...

***SX-ROT** with guide holder **SX-PG-M** & collet SP02*

***SP12** high precision collet down to 30 µm*

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3D µEDM

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SARIX

3D Micro EDM Milling

SX200 -hpm

HIGH PRECISION & HIGH CAPACITY MICRO EROSION MACHINE

MICRO MECHANICS
MICRO MOLD
AUTOMOTIVE
TEXTILE
MEDICAL
AEROSPACE

- The **SX200-hpm** machine **high production capability concept** through its efficient versatile compact **SX-CNC** Multiaxis controller brings up the **Micro EDM Machining** using the following axis A/B positioning, rotary/indexing, C-indexing spindle and W back slide-axis (Z2) for the unlimited hole sequence process. Further technological innovations like DFC make the **high speed Micro EDM Drilling** even more productive.
- **SX-HMI**, "On-board" trolley console interface easy user friendly with color touch screen panel and joystick hand box along with the monitoring of the entire machining process.
- 3 sides wide open access machine with full safety operator protection and setting mode access.
- **SX-DA**, free accessible from side, dielectric unit for maintenance and control. Machine frontal flushing visual for the various settings valves.
- **SX-A344L**, high precision rotating spindle with automatic electrode refeeding and wear compensation control for continuous unlimited hole production. With the **SX-Revolver**, the SX-A344L spindle have the possibility to change automatically 8 electrodes of 300 up to 600 mm long.
- **SX-BTD**, **High Speed Micro EDM drilling** Technology with breakthrough detection control.
- The high performance **SARIX Micro Pulse Shape EDM** generator **SX-MPS**, is improved with the integration of the **PULSAR** generator, offering new opportunities for faster, smaller, deeper and more precise perfect holes and 3D cavities.
- **Micro EDMing** machining technology using solid and tube electrode from **45 µm**.
- **Micro Holes**, high precision micro round and shape holes down to **20 µm** to 3.0 mm.
- High surface finishing capability down to **Ra 0.10** and **Ra 0.05** with the **Micro Fine Pulse Shape** generator **SX-MFPS**.
- High precision positioning accuracy and drilling depth control up to **±1 µm**.
- **SX-MDH**, Micro Deep Hole drilling device for **0.10 mm** holes with tolerance of **±5 µm** on depth ratio upto 100 - 150 time.
- **Industry 4.0 - smart production** and automation process integration capability.

TECHNICAL SPECIFICATIONS

Closed cell machine	SX200-hpm
Type	High Capacity Micro EDM Machine
Work table	L 700 mm l 300 mm
Travel X axis	350 mm
Travel Y axis	200 mm
Travel Z axis	200 mm
Travel W axis (optional)	400 mm
Z axis feed rate	1200 mm/min
X-Y axis feed rate	1200 mm/min
Precision of positioning	±2.0 µm
Resolution	0.1 µm
Table load	~ 50 kg
Net weight	~ 1600 kg
Dimensions Machine	L = 1600 x l = 2200 x h = 2300 mm

	SX-MPS	SX-HPS
Generator	**MICRO PULSE SHAPE**	**HIGH PULSE SHAPE**
Freerun voltage	60 ÷ 255 V	fixed voltage
Frequency	1÷250 pos.	1÷100 pos.
Current pulse	1÷200 pos.	1÷200 pos.
Dimensions	135 x 110 x 500 mm	
Control Unit	**SX-CU**	
SX-CU integrated in the electrical cabinet on the table		
Power supply	400 V - 3 Ph /50 Hz	
Nominal power	2 KVA	
Dielectric Unit	**SX-DA**	
Capacity	75 liters	
Dielectric	deionised water or dielectric oil	
Dimensions	550 x 1200 x 600 mm	

Our specifications are subject to any change, giving you a continous technological advantage.

***SX-MVS**, Measuring and vision system*

***SX-W**, Backslide automatic guide holder height position*

***SX-A344L**, High precision Automatic spindle with **SP-MDC** collet*

***SX-AB100C**, High precision A/B indexing axis*

***SX-ARIANNE**, Wire Dress Unit for the production of micro electrode*

In the region where avant-garde technology has made EDM history

TYPICAL CONFIGURATION
SX200-hpm High Capacity Micro EDM machine

SX200-hpm machine including **SX-CU** CNC & **SX-MPS**, Micro Pulse Shape Generator
Axis configuration X,Y,Z (A,B,C additional axis - optional)
Virtually up to 16 axis control with 4 axis on simultaneous motion

- **SX-HPS**, High Power Pulse Shape generator for higher stock removal.
- **SX-Icon Editor**, free programming PC software with ISO and G code.
- **SX-KBS**, Knowledge Base - Micro EDM Technology data base PC software.
- **SX-SLS-DT**, Self-learning and search technology software for drilling.
- **SX-PL**, Multi-axis-erosion software X-Y-Z axis with extended planetary-orbiting function.
- **SX-DA**, Dielectric unit with 1 µm filtering with conductivity and temperature control for deionised water or dielectric oil. *Fire extinguishing system for Dielectric Oil (option).*
- **SX-HP**, High pressure flushing unit up to 70 bars.
- **SX-A344-L**, High precision rotating spindle with automatic electrode refeeding and wear compensation with through flushing function (C function optional).
- **SX-PG-M**, Precise ceramic guide height adjustment with retractable guide holder.
- **SP-MDC**, Multi diameter automatic refeeding collet 0.2 - 1.0 mm and 0.5 - 1.5 mm

SX-CU CNC CONTROL UNIT

- **SX-CU**, controller with enhanced interaction and process visualisation with **free and unlimited program capacity and Micro EDM Technology settings**.
- **SX-HMI**, "On board" user friendly12" color Touch Screen interface with USB & LAN.

OPTIONS

- **SX-MFPS** and **SX-UFPS**, Micro Fine Pulse Shape and Ultra Fine Pulse Shape generators for Micro Fine and ultrafine finishing.
- **SX-DA-HC**, High capacity filtering deionised water unit using 3 filters of 15".
- **SX-ROT**, High precision rotating spindle for SP02/03 collet with 3R Macro chuck.
- **SP06** & **SP08**, Collets for SX-A344-L automatic spindle down to **45 µm**.
- **SX-W**, Backslide programmable W axis for automatic guide holder height position.
- **SX-Revolver**, Automatic electrodes changer for SX-A344-L with 300 or 600 mm cartridge of 8 electrodes.
- **SX-C-ROT**, High precision rotating spindle for SP02/03 collet with C-indexing function.
- **SX-TH**, "Tilting Head" for taper holes with SX-A344-L spindle using the collet SP08.
- **SX-R-AB100D**, High precision rotary programmable A/B axis with direct axis control and universal 3R & Erowa chuck.
- **SX-AB100C**, High precision single or double indexable and programmable A/B-axis.
- **SX-ARIANNE**, Electrode wire EDM grinding device for the automatic micro electrode production for round and shape micro holes down to 10 µm.
- **SX-Micrometer**, Laser for measurement of diameter and profile of micro electrodes.
- **SX-MDH**, Micro Deep Hole Drilling device for 0.10 mm holes with tolerance of **± 5 µm** on depth ratio upto 100 - 150 time.
- **SX-3D Micro EDM Milling CAM**, Software for 3D Micro EDM Milling machining.
- **SX-DNC**, Sequencer software for dxf file and unlimited programmable number of holes.
- **SX-MVS**, Measurement and Vision System. Image processing for the control and measurement of the hole diameter, hole pitch, position and through hole status.
- **SX-EAD**, Electrode Automatic Distributor device.

ACCESSORIES

- **SP02**, High precision manual collet.
- High precision ceramic guide **SG01-SG03-SG08** and specials series.
- High precision solid carbide electrodes tubes down to **90 µm** and blank electrodes down to **45 µm**.
- Brass & Copper single holes and coreless electrodes tubes.

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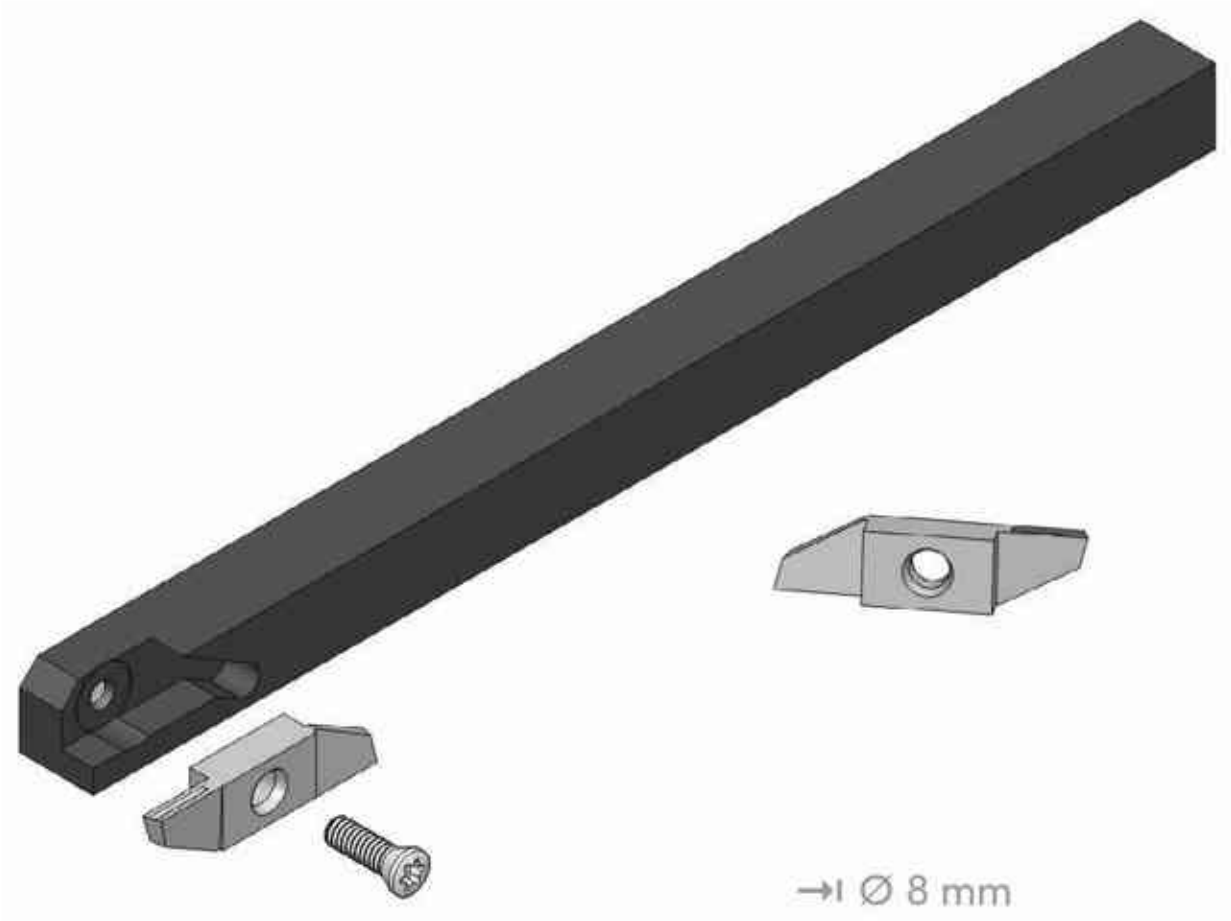
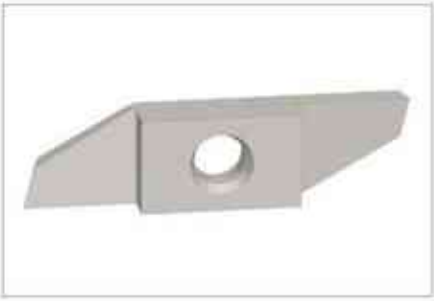
040 line



Presentation of 040 line
Vorstellung der 040 line
Présentation de la 040 line



Advantages of 040 line

- Positioning of the insert garanted by the «V» shaped seating.
- 2 cutting edges available.
- Vast choice of inserts.

Vorteile der 040 line

- Exakte Positionierung der Wendeplatte dank der «V» Form des Wendeplattensitzes.
- 2 verfügbare Schneidkanten.
- Große Auswahl von Wendeplattengeometrien.

Avantages de la ligne 040 line

- Référencement de la plaquette assuré par le siège en «V».
- 2 arêtes de coupe disponibles.
- Large choix de plaquettes.

Coating of inserts
Beschichtung der Wendeplatten
Revêtement des plaquettes

✓ = Available
✓ = Verfügbar
✓ = Disponible

Designation Bezeichnung Désignation	Description Beschreibung Description
K18	**Without coating | K18 carbide** **Ohne Beschichtung | K18 Hartmetall** **Sans revêtement | Carbure K18**
BI20	**AlTi(Cr)N-based** • Very smooth surface finish. • For the machining of sticky materials. **AlTi(Cr)N-Basis** • Sehr glatte Oberfläche. • Zur Bearbeitung von Werkstoffen mit Tendenz zur Aufbauschneidenbildung. **BaseAlTi(C)N** • Bon glissement du copeau. • Pour usinage des matériaux ayant une tendance au collage.
BI30	**AlTiN-based + Micro finish** • Very sharp cutting edges. • Very smooth surface finish, ideal for non-ferrous materials. **AlTiN-Basis + «Micro finish»** • Sehr scharfe Schneidkanten. • Sehr glatte Oberfläche, ideal für Nichteisenwerkstoffe. **Base AlTiN + «Micro finish»** • Arêtes de coupe très vives. • Bon glissement du copeau, idéal pour les matériaux non ferreux.
BI40	**AlTi(C)N-based** • Universal coating. • High hardness. • Very smooth surface finish. • Suitable for steel and stainless steel. **AlTi(C)N-Basis** • Universalbeschichtung. • Hohe Schichthärte. • Sehr glatte Oberfläche. • Geeignet für Stahl und Edelstahl. **Base AlTi(C)N** • Revêtement universel. • Dureté élevée. • Bon glissement du copeau. • Adapté à l'acier et à l'acier inox.

Designation Bezeichnung Désignation	Description Beschreibung Description
BI80	**AlTiN-based + Micro finish** • Ultra-thin layer version of BI90. • Perfect for small tools with sharp cutting edges. **AlTiN-Basis + «Micro finish»** • Ultradünne Schicht der Version BI90. • Perfekt für kleine Werkzeuge mit scharfen Schneidkanten. **Base AlTiN + «Micro finish»** • Version du BI90 avec couche ultra fine. • Parfait pour les petits outils avec des arêtes de coupe vives.
BI90	**AlTiN-based** • Universal coating. • Good oxidation resistance. • High heat resistance. • Suitable for steel and stainless steel. **AlTiN-Basis** • Universalbeschichtung. • Gute Oxidationsbeständigkeit. • Hohe Hitzebeständigkeit. • Ideal für Stahl und Edelstahl. **BaseAlTiN** • Revêtement universel. • Bonne résistance à l'oxydation. • Haute résistance à la chaleur.. • Adapté à l'acier et à l'acier inox.
BI110	**AlTiCrN-based** • Very smooth surface finish. • High heat resistance. • High wear resistance. • Especially suitable for machining pure copper, CuBe, CoCr and aluminium. **AlTiCrN-Basis** • Sehr glatte Oberflächengüte. • Hohe Hitzebeständigkeit. • Hohe Verschleissfestigkeit. • Besonders geeignet für die Bearbeitung von reinem Kupfer, CuBe, CoCr und Aluminium. **Base AlTiCrN** • Très bon glissement du copeau. • Haute résistance à la chaleur. • Haute résistance à l'usure. • Particulièrement adapté à l'usinage du cuivre pur, du CuBe, du CoCr et de l'aluminium.

Designation Bezeichnung Désignation	Description Beschreibung Description
TIN	TiN • Universal coating. TiN • Universalbeschichtung. TiN • Revêtement universel.

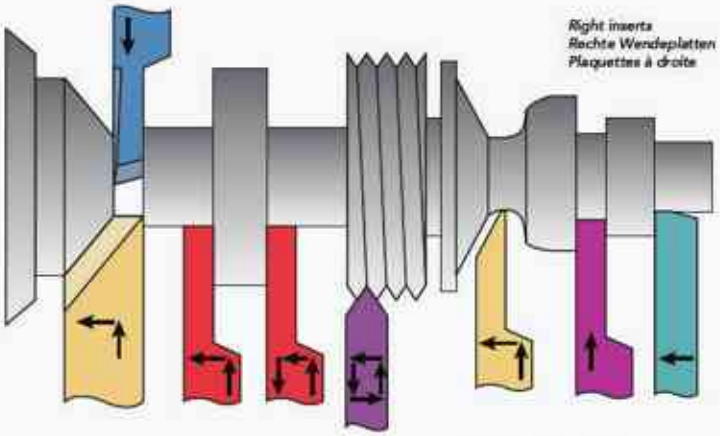
Field of application of 040 line
Anwendungsbereiche der 040 line
Champ d'application de la 040 line

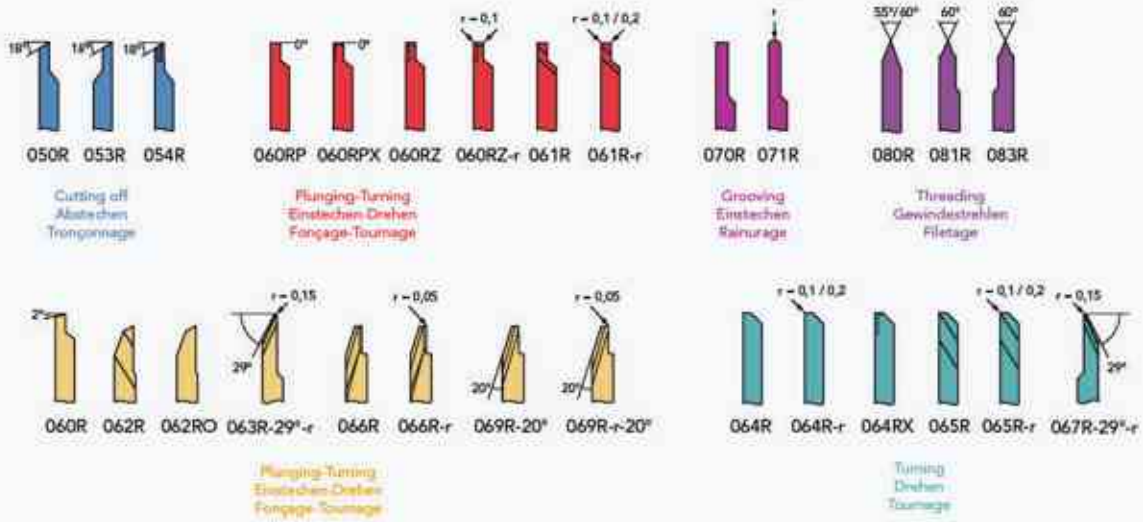
Maximum cutting-off
Maximaler Abstechdurchmesser
Tronçonnage maximum

Ø 8 mm

Maximum turning
Maximale Spantiefe
Tournage maximum

ap 2 mm





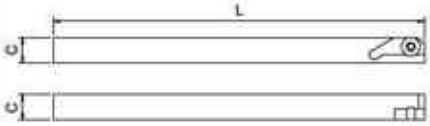
0xxR

Right tool holder
Werkzeughalter rechts
Porte-outil à droite

Section C Querschnitt C Section C	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
7 x 7	124	007R
8 x 8	124	008R
10 x 10	124	010R
12 x 12	124	012R
16 x 16	100	016R
20 x 20	100	020R

0xxL

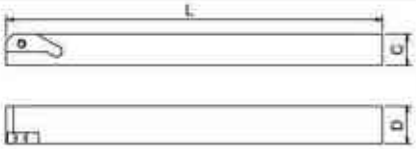
Left tool holder
Werkzeughalter links
Porte-outil à gauche



Section C Querschnitt C Section C	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
7 x 7	140	007L
8 x 8	140	008L
10 x 10	124	010L
12 x 12	124	012L
16 x 16	100	016L
20 x 20	100	020L

0xx-12R

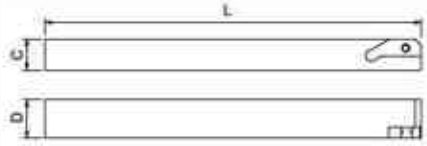
Reinforced right tool holder
Verstärkter Werkzeughalter rechts
Porte-outil à droite renforcé



Section C Querschnitt C Section C	Section D Querschnitt D Section D	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
8	12	120	008-12R
10	12	120	010-12R

0xx-12L

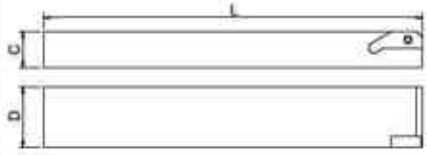
Reinforced left tool holder
Verstärkter Werkzeughalter links
Porte-outil à gauche renforcé



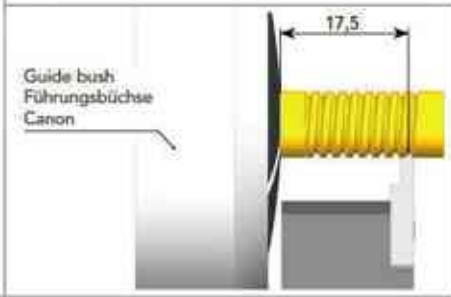
Section C Querschnitt C Section C	Section D Querschnitt D Section D	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
10	12	120	010-12L

0xx-20L

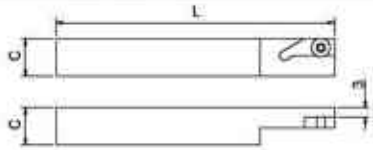
Left offset threading tool holder
Versetzte linke Gewindehalter zum Gewindestrehlen
Porte-outil à gauche décalé pour filetage



Section C Querschnitt C Section C	Section D Querschnitt D Section D	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
8	20	124	008-20L
10	20	124	010-20L
12	20	124	012-20L



Use with 080R, 081R and 083R inserts
Verwendung mit 080R, 081R und 083R Wendeplatten
Utilisation avec les plaquettes 080R, 081R et 083R

012R3 90	Right «Pick-up» tool holder «Pick-up» Werkzeughalter rechts Porte-outil «pick-up» à droite	Section C Querschnitt C Section C	Lenght L Länge L Longueur L	Article nr. Artikel Nr. N° Article
		12 x 12	90	012R 3 90
		Use with 053R inserts *Verwendung mit 053R Wendeplatten* *Utilisation avec les plaquettes 053R*		

	Turning tool holders for counter-operation Drehwerkzeughalter zur Rückseitenbearbeitung Porte-outils de tournage pour contre-opération
	See the «Cylindrical turning tool holders» documentation for further information. *Siehe die «Zylindrische Drehwerkzeughalter» Dokumentation für weitere Informationen.* *Voir la documentation «Porte-outils de tournage cylindriques» pour plus d'informations.*

001-1	Key Schlüssel Clé	Article nr. Artikel Nr. N° Article
	Torx 8	001-1

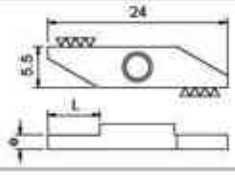
001-2	Screw for standard tool holder Schraube für Standard-Werkzeughalter Vis pour porte-outil standard	Article nr. Artikel Nr. N° Article
	M2,5 x 7,5	001-2

Blank
Rohling
Ebauche

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

040R

Blank insert
Rohling
Plaquette ébauche



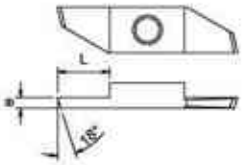
e	L	Article nr. Artikel Nr. N° Article	K18
1,4	6,0	040R1,4	✓
1,7	6,0	040R1,7	✓
2,0	6,0	040R2,0	✓
2,2	6,0	040R2,2	✓
2,7	6,0	040R2,7	✓
3,5	—	040R3,5	✓

Guide bush cut off Ø 8 mm
Abstechen an der Führungsbüchse Ø 8 mm
Tronçonnage côté canon Ø 8 mm

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

050R

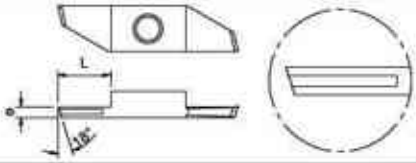
Cutting insert 18°
Abstechplatte 18°
Tronçonneur 18°



e	L	Article nr. Artikel Nr. N° Article	BI20	BI40	BI90	BI110	TIN
0,5	2,5	050R0,5	✓	✓			
0,7	2,5	050R0,7		✓			✓
0,8	4,0	050R0,8	✓	✓			
1,0	4,0	050R1,0	✓	✓	✓		✓
1,2	5,0	050R1,2	✓	✓	✓		✓
1,5	6,5	050R1,5	✓	✓		✓	✓
1,8	6,5	050R1,8	✓	✓			✓
2,0	6,5	050R2,0	✓	✓	✓		✓

054R

Cutting insert with chip roller
Abstechplatte mit Spanroller
Tronçonneur avec roule-copeau



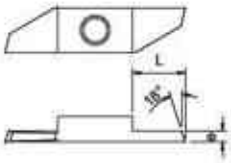
e	L	Article nr. Artikel Nr. N° Article	BI20	BI40
1,0	4,0	054R1,0	✓	✓
1,2	5,0	054R1,2	✓	✓
1,5	6,5	054R1,5	✓	✓
1,8	6,5	054R1,8		✓
2,0	6,5	054R2,0	✓	✓

Sub spindle cut off Ø 8 mm
Abstechen an der Abgreifzange Ø 8 mm
Tronçonnage côte prise de pièce Ø 8 mm

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

053R

Opposite cutting insert 18°
Umgekehrte Abstechplatte 18°
Tronçonneur inversé 18°



ø	L	Article nr. Artikel Nr. N° Article	BI20	BI40
0,5	3,0	053R0,5		✓
0,8	3,0	053R0,8		✓
1,0	4,0	053R1,0	✓	✓
1,2	5,0	053R1,2	✓	✓
1,5	6,5	053R1,5	✓	✓
1,8	6,5	053R1,8	✓	✓
2,0	6,5	053R2,0	✓	✓

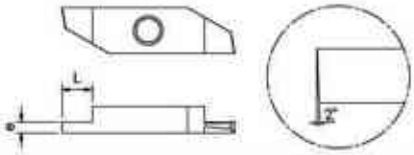
Use with 0xxL tool holders
Verwendung mit 0xxL Werkzeughalter
Utilisation avec les porte-outils 0xxL

Back turning
Drehen hinten
Tournage arrière

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

060R

Back turning insert 2°
Drehplatte hinten 2°
Tourneur arrière 2°



ø	L	Article nr. Artikel Nr. N° Article	BI20	BI40	TIN
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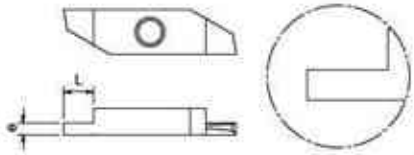
0,7	2,5	060R0,7	✓		✓
1,0	2,5	060R1,0	✓		✓
1,2	3,0	060R1,2	✓	✓	✓
1,5	3,0	060R1,5	✓		✓
1,8	4,5	060R1,8	✓	✓	✓
2,0	4,5	060R2,0	✓	✓	✓

060RP

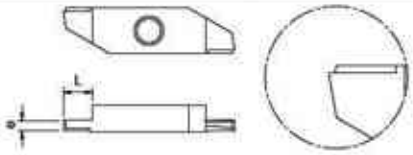
Back turning insert 0°
Drehplatte hinten 0°
Tourneur arrière 0°



ø	L	Article nr. Artikel Nr. N° Article	BI20	BI40	TIN
0,5	2,5	060RP0,5		✓	✓
0,8	2,5	060RP0,8	✓	✓	
1,0	2,5	060RP1,0	✓	✓	✓
1,2	3,0	060RP1,2	✓	✓	✓
1,5	3,0	060RP1,5	✓	✓	✓
1,8	4,5	060RP1,8	✓		
2,0	4,5	060RP2,0	✓	✓	✓

060RPX

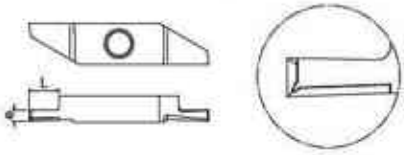
Back turning insert 0° with chip breaker
Drehplatte hinten 0° mit Spanbrecher
Tourneur arrière 0° avec brise-copeau



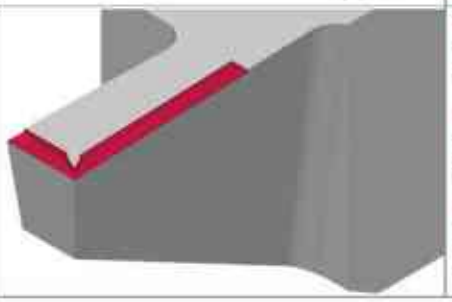
ø	L	Article nr. Artikel Nr. N° Article	BI30
1,2	3,0	060RPX1,2	✓
1,5	3,0	060RPX1,5	✓
1,8	4,5	060RPX1,8	✓

060RZ

Back turning insert with chip breaker
Drehplatte hinten mit Spanbrecher
Tourneur arrière avec brise-copeau



e	L	Article nr. Artikel Nr. N° Article	BI90
1,0	2,5	060RZ1,0	✓
1,5	4,0	060RZ1,5	✓
2,0	4,0	060RZ2,0	✓



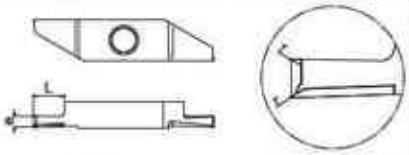
Geometry ideal for the machining of material generating chips which are difficult to manage.
Treated cutting edges.
f min: 0,02 mm/U.

Optimale Geometrien für die Bearbeitung von schwer zerspanbaren Materialien.
Bearbeitete Schneidkanten.
f min: 0,02 mm/U.

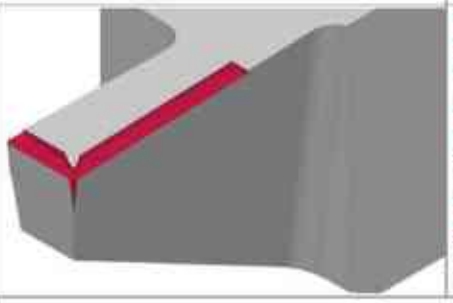
Géométrie idéale pour les matériaux générant des copeaux difficiles à maîtriser.
Arêtes de coupe traitées.
f min: 0,02 mm/U.

060RZ - r

Back turning insert with chip breaker and radius
Drehplatte hinten mit Spanbrecher und Radius
Tourneur arrière avec brise-copeau et rayons



e	L	r	Article nr. Artikel Nr. N° Article	BI90
1,0	2,5	0,1	060RZ1,0 - r 0,1 -	✓
1,2	3,0	0,1	060RZ1,2 - r 0,1 -	✓
1,5	4,0	0,1	060RZ1,5 - r 0,1 -	✓
2,0	4,0	0,1	060RZ2,0 - r 0,1 -	✓



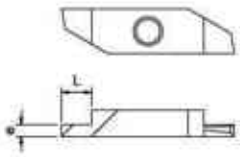
Geometry ideal for the machining of material generating chips which are difficult to manage.
Treated cutting edges.
f min: 0,02 mm/U.

Optimale Geometrien für die Bearbeitung von schwer zerspanbaren Materialien.
Bearbeitete Schneidkanten.
f min: 0,02 mm/U.

Géométrie idéale pour les matériaux générant des copeaux difficiles à maîtriser.
Arêtes de coupe traitées.
f min: 0,02 mm/U.

061R

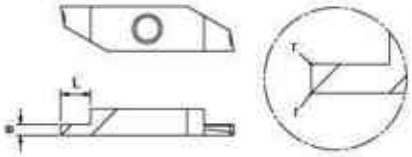
Back turning insert with «parisian cut»
Drehplatte hinten mit «Pariserschliff»
Tourneur arrière avec «coupe parisienne»



e	L	Article nr. Artikel Nr. N° Article	BI20	BI40	TIN
0,7	1,5	061R0,7	✓	✓	
0,8	2,0	061R0,8	✓	✓	
1,0	2,5	061R1,0	✓	✓	
1,2	3,0	061R1,2	✓	✓	✓
1,5	3,0	061R1,5	✓	✓	✓
1,8	4,5	061R1,8	✓	✓	
2,0	4,5	061R2,0	✓	✓	✓
2,5	4,5	061R2,5	✓	✓	✓

061R - r

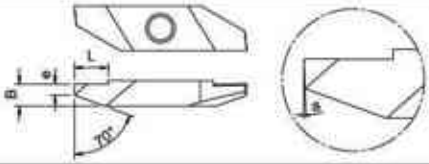
Back turning insert with «parisian cut»
Drehplatte hinten mit «Pariserschliff»
Tourneur arrière avec «coupe parisienne»



e	L	r	Article nr. Artikel Nr. N° Article	BI20	BI40
1,0	2,5	0,1	061R1,0 - r 0,1 -	✓	✓
1,2	3,0	0,1	061R1,2 - r 0,1 -		✓
1,2	3,0	0,1	061R1,2 - r 0,2 -	✓	✓
1,5	3,0	0,1	061R1,5 - r 0,1 -	✓	✓
1,5	3,0	0,2	061R1,5 - r 0,2 -	✓	✓
2,0	4,5	0,1	061R2,0 - r 0,1 -	✓	✓
2,0	4,5	0,2	061R2,0 - r 0,2 -	✓	✓

062R

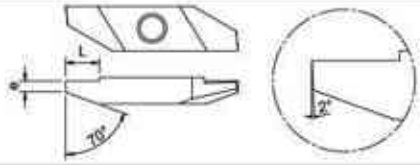
Back turning insert with «parisian cut»
Drehplatte hinten mit «Pariserschliff»
Tourneur arrière avec «coupe parisienne»



e	L	B	a	Article nr. Artikel Nr. N° Article	BI20	BI40
1,5	4,5	3,0	2°	062R1,5	✓	✓
0,5	4,5	1,6	5°	062R**1,6**	✓	✓

062RO

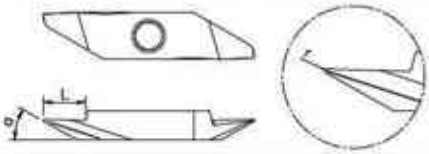
Back turning insert, cut 0°
Drehplatte hinten, Schnitt 0°
Tourneur arrière, coupe 0°



e	L	Article nr. Artikel Nr. N° Article	BI20	BI40
1,0	4,5	062RO1,0		✓
1,5	4,5	062RO1,5	✓	
2,0	4,5	062RO2,0	✓	

063R - 29° - r

Back turning insert 29° with chip breaker and radius
Drehplatte hinten 29° mit Spanbrecher und Radius
Tourneur arrière 29° avec brise-copeau et rayon

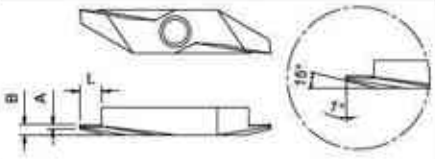


L	α	r	Article nr. Artikel Nr. N° Article	BI90	BI110
5,0	29°	0,04	063R - 29° - r 0,04 -	✓	✓
5,0	29°	0,15	063R - 29° - r 0,15 -	✓	✓

New
Neu
Nouveau

066R

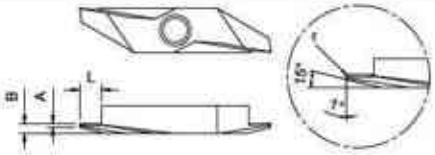
Back turning insert with «W» chip roller
Drehplatte hinten mit «W» Spanroller
Tourneur arrière avec roule-copeau «W»



A	B	L	Article nr. Artikel Nr. N° Article	K18	BI40	BI90
0,5	1,3	2,5	066R2,5	✓	✓	✓

066R - r

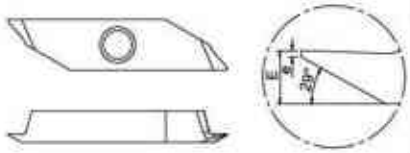
Back turning insert with «W» chip roller and radius
Drehplatte hinten mit «W» Spanroller und Radius
Tourneur arrière avec roule-copeau «W» et rayon



A	B	L	Article nr. Artikel Nr. N° Article	K18	BI40	BI90
0,5	1,3	2,5	066R2,5 - r 0,05 -	✓	✓	✓
0,7	2,0	3,5	066R3,5 - r 0,05 -	✓		✓

069R - 29°

Insert 29° for fine back turning
Wendeplatte 29° für das feine Drehen hinten
Plaquette 29° pour le tournage arrière fin



e	L	E	Article nr. Artikel Nr. N° Article	BI80
0,1	0,9	0,6	069R0,1 - 29° - 0,6 -	✓
0,1	1,6	1,0	069R0,1 - 29° - 1,0 -	✓
0,1	4,3	2,5	069R0,1 - 29° - 2,5 -	✓

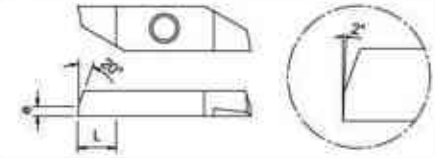
New
Neu
Nouveau

Front turning
Drehen vor dem Bund
Tournage avant

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

064R

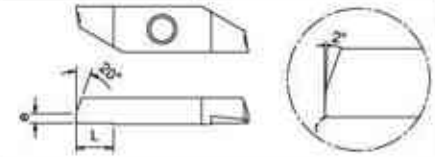
Front turning insert
Drehplatte vorne
Tourneur avant



e	L	Article nr. Artikel Nr. N° Article	BI20	BI40	BI90	TIN
1,5	5,0	064R3,5	✓	✓	✓	✓

064R - r

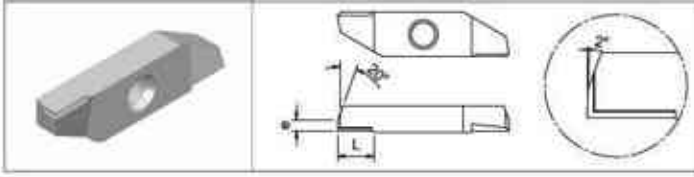
Front turning insert with radius
Drehplatte vorne mit Radius
Tourneur avant avec rayon



e	L	r	Article nr. Artikel Nr. N° Article	BI20	BI40
1,5	5,0	0,1	064R3,5 - r 0,1 -	✓	✓
1,5	5,0	0,2	064R3,5 - r 0,2 -	✓	✓

064RX

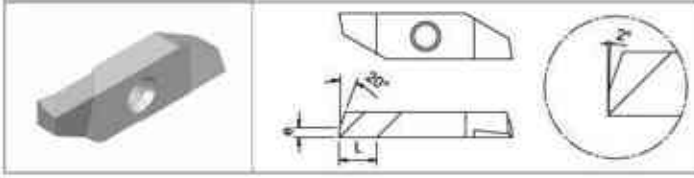
Front turning insert with chip breaker
Drehplatte vorne mit Spanbrecher
Tourneur avant avec brise-copeau



e	L	Article nr. Artikel Nr. N° Article	BI20	BI30	BI40
1,5	5,0	064RX3,5	✓	✓	✓

065R

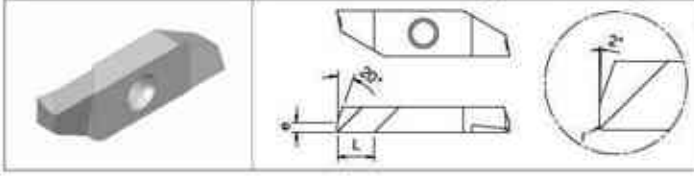
Front turning insert with «parisian cut»
Drehplatte vorne mit «Pariserschliff»
Tourneur avant avec «coupe parisienne»



e	L	Article nr. Artikel Nr. N° Article	BI20	BI40	BI90	TIN
1,5	5,0	065R3,5	✓	✓	✓	✓

065R - r

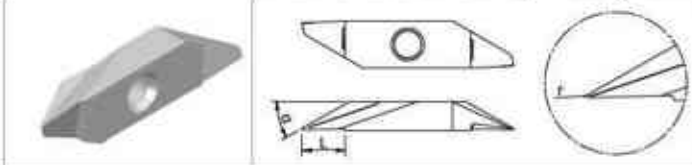
Front turning insert with «parisian cut» and radius
Drehplatte vorne mit «Pariserschliff» und Radius
Tourneur avant avec «coupe parisienne» et rayon



e	L	r	Article nr. Artikel Nr. N° Article	BI20	BI40
1,5	5,0	0,1	065R3,5 - r 0,1 -	✓	✓
1,5	5,0	0,2	065R3,5 - r 0,2 -	✓	✓

067R - 29° - r

Front turning insert 29° with chip breaker and radius
Drehplatte vorne 29° mit Spanbrecher und Radius
Tourneur avant 29° avec brise-copeau et rayon



L	α	r	Article nr. Artikel Nr. N° Article	BI90	BI110
5,0	29°	0,04	067R - 29° - r 0,04 -	✓	✓
5,0	29°	0,15	067R - 29° - r 0,15 -	✓	✓

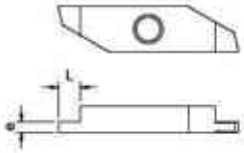
New
Neu
Nouveau

Grooving
Einstechen
Rainurage

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

070R

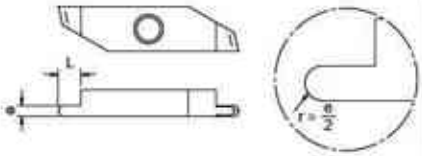
Grooving insert
Einstechplatte
Plaquette de rainurage



e	L	Article nr. Artikel Nr. N° Article	BI20	BI40
0,25	1,0	070R0,25	✓	✓
0,3	1,0	070R0,3	✓	✓
0,35	1,0	070R0,35	✓	✓
0,4	1,0	070R0,4	✓	✓
0,45	1,0	070R0,45	✓	✓
0,5	1,5	070R0,5	✓	✓
0,6	1,5	070R0,6	✓	✓
0,7	1,5	070R0,7	✓	✓
0,8	1,5	070R0,8	✓	✓
0,85	1,5	070R0,85	✓	
0,9	2,0	070R0,9	✓	✓
0,95	2,0	070R0,95	✓	
1,0	2,5	070R1,0	✓	✓
1,1	2,5	070R1,1	✓	✓
1,2	2,5	070R1,2	✓	✓
1,3	2,5	070R1,3	✓	✓
1,4	2,5	070R1,4	✓	✓
1,5	2,5	070R1,5	✓	✓
1,6	3,0	070R1,6	✓	
1,7	3,0	070R1,7		✓
1,8	3,0	070R1,8	✓	✓
2,0	3,0	070R2,0	✓	✓

071R

Grooving insert with radius
Einstechplatte mit Radius
Plaquette de rainurage avec rayon



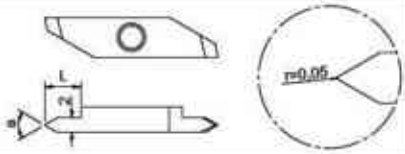
e	L	r	Article nr. Artikel Nr. N° Article	BI40
0,3	1,5	0,15	071R0,3 - r 0,15 -	✓
0,4	1,5	0,2	071R0,4 - r 0,2 -	✓
0,5	2,0	0,25	071R0,5 - r 0,25 -	✓
0,6	2,0	0,3	071R0,6 - r 0,3 -	✓
0,7	2,0	0,35	071R0,7 - r 0,35	✓
0,8	2,0	0,4	071R0,8 - r 0,4 -	✓
1,0	3,0	0,5	071R1,0 - r 0,5 -	✓
1,2	3,0	0,6	071R1,2 - r 0,6 -	✓
1,4	3,0	0,7	071R1,4 - r 0,7 -	✓
1,5	3,0	0,75	071R1,5 - r 0,75 -	✓
1,6	3,0	0,8	071R1,6 - r 0,8 -	✓
2,0	3,0	1,0	071R2,0 - r 1,0 -	✓
2,5	3,0	1,25	071R2,5 - r 1,25 -	✓
3,0	3,5	1,5	071R3,0 - r 1,5 -	✓

Threading
Gewindestrehlen
Filetage

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

080R

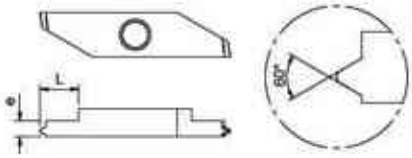
Threading insert with partial profile
Gewindeplatte mit Teilprofil
Fileteur avec profil partiel



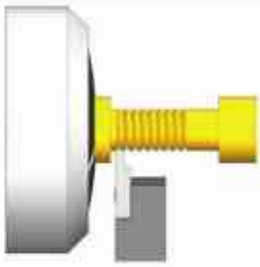
L	a	Article nr. Artikel Nr. N° Article	BI20	BI40
5,0	55°	080R - 55° -	✓	✓
5,0	60°	080R - 60° -	✓	✓

081R

Threading insert with full profile
Gewindeplatte mit Vollprofil
Fileteur avec profil complet



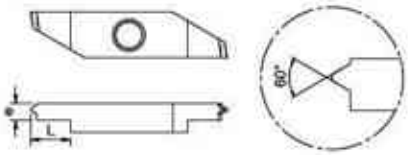
e	L	Pitch Steigung Pas	M	Article nr. Artikel Nr. N° Article	BI40
1,0	3,0	0,20	-	081R0,2	✓
1,0	3,0	0,25	1/1,2	081R0,25	✓
1,0	3,0	0,30	1,4	081R0,3	✓
1,0	3,0	0,35	1,6	081R0,35	✓
1,0	3,0	0,40	2,0	081R0,4	✓
1,0	3,0	0,45	2,5	081R0,45	✓
1,0	3,0	0,50	3,0	081R0,5	✓
1,0	3,0	0,60	3,5	081R0,6	✓
1,0	3,0	0,70	4,0	081R0,7	✓
1,0	3,0	0,75	4,5	081R0,75	✓
1,5	4,5	0,80	5,0	081R0,8	✓
1,5	4,5	1,00	6,0	081R1,0	✓
1,5	4,5	1,25	8,0	081R1,25	✓
2,0	5,0	1,50	10	081R1,5	✓

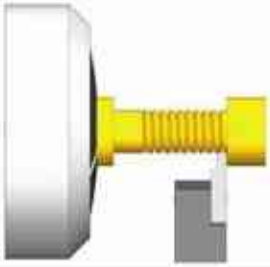


Threading on side «screw point»
Use with 0xxR tool holders

Gewindestrehlen Seite «Schraubenspitze»
Verwendung mit 0xxR Werkzeughalter

Filetage côté «pointe de vis»
Utilisation avec les porte-outils 0xxR

083R	Threading insert with full profile Gewindeplatte mit Vollprofil Fileteur avec profil complet	e	L	Pitch Steigung Pas	M	Article nr. Artikel Nr. N° Article	BI40
		1,0	3,0	0,25	1 / 1,2	083R0,25	✓
		1,0	3,0	0,30	1,4	083R0,3	✓
		1,0	3,0	0,35	1,6	083R0,35	✓
		1,0	3,0	0,40	2,0	083R0,4	✓
		1,0	3,0	0,45	2,5	083R0,45	✓
		1,0	3,0	0,50	3,0	083R0,5	✓
		1,0	3,0	0,60	3,5	083R0,6	✓
		1,0	3,0	0,70	4,0	083R0,7	✓
		1,0	3,0	0,75	4,5	083R0,75	✓
		1,5	4,5	0,80	5,0	083R0,8	✓
		1,5	4,5	1,00	6,0	083R1,0	✓
		1,5	4,5	1,25	8,0	083R1,25	✓



Threading on side «screw head»
Use with 0xxL tool holders

Gewindestrehlen Seite «Schraubenkopf»
Verwendung mit 0xxL Werkzeughalter

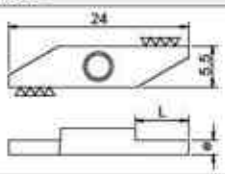
Filetage côté «tête de vis»
Utilisation avec les porte-outils 0xxL

Blank
Rohling
Ebauche

L : Left machining
L : Linke Bearbeitung
L : Usinage à gauche

040L

Blank insert
Rohling
Plaquette ébauche



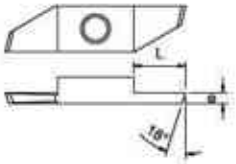
e	L	Article nr. Artikel Nr. N° Article	K18
1,4	5,0	040L1,4	✓
1,7	6,0	040L1,7	✓
2,0	6,0	040L2,0	✓
2,2	6,0	040L2,2	✓
3,5	—	040L3,5	✓

Guide bush cut off Ø 8 mm
Abstechen an der Führungsbüchse Ø 8 mm
Tronçonnage côté canon Ø 8 mm

L : Left machining
L : Linke Bearbeitung
L : Usinage à gauche

050L

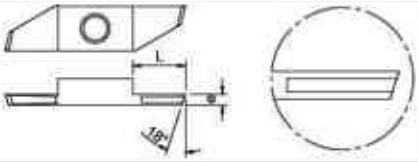
Cutting insert 18°
Abstechplatte 18°
Tronçonneur 18°



e	L	Article nr. Artikel Nr. N° Article	BI20	BI40	TIN
0,5	2,5	050L0,5	✓	✓	
0,7	2,5	050L0,7		✓	
0,8	4,0	050L0,8	✓	✓	
1,0	4,0	050L1,0	✓	✓	✓
1,2	5,0	050L1,2	✓	✓	✓
1,5	6,5	050L1,5	✓	✓	✓
1,6	6,5	050L1,6	✓		
1,8	6,5	050L1,8	✓	✓	✓
2,0	6,5	050L2,0	✓	✓	✓

054L

Cutting insert with chip roller
Abstechplatte mit Spanroller
Tronçonneur avec roule-copeau



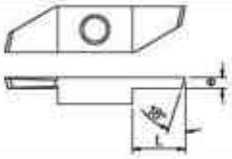
e	L	Article nr. Artikel Nr. N° Article	BI20	BI40	TIN
1,0	4,0	054L1,0	✓	✓	
1,2	5,0	054L1,2	✓	✓	
1,5	6,5	054L1,5	✓	✓	✓
2,0	6,5	054L2,0	✓	✓	

Sub spindle cut off Ø 8 mm
Abstechen an der Abgreifzange Ø 8 mm
Tronçonnage côte prise de pièce Ø 8 mm

L : Left machining
L : Linke Bearbeitung
L : Usinage à gauche

053L

Opposite cutting insert 18°
Umgekehrte Abstechplatte 18°
Tronçonneur inversé 18°



●	L	Article nr. Artikel Nr. N° Article	BI20	BI40
1,0	4,0	053L1,0	✓	✓
1,2	4,0	053L1,2	✓	
1,5	6,5	053L1,5	✓	

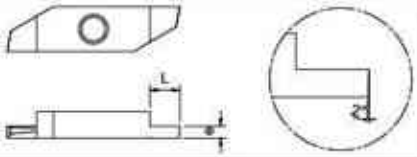
Use with 0xxR tool holders
Verwendung mit 0xxR Werkzeughalter
Utilisation avec les porte-outils 0xxR

Back turning
Drehen hinter dem Bund
Tournage arrière

L : Left machining
L : Linke Bearbeitung
L : Usinage à gauche

060L

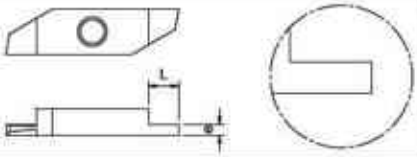
Back turning insert 2°
Drehplatte hinten 2°
Tourneur arrière 2°



●	L	Article nr. Artikel Nr. N° Article	BI20	BI40	TIN
1,0	2,5	060L1,0	✓	✓	
1,2	3,0	060L1,2	✓	✓	✓
1,5	3,0	060L1,5	✓	✓	✓
1,8	4,5	060L1.8	✓	✓	
2,0	4,5	060L2,0	✓	✓	✓

060LP

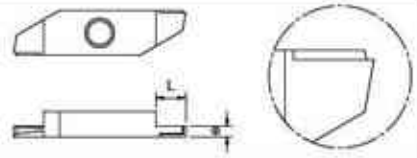
Back turning insert 0°
Drehplatte hinten 0°
Tourneur arrière 0°



●	L	Article nr. Artikel Nr. N° Article	BI20	BI40	BI90
1,0	2,5	060LP1,0	✓	✓	✓
1,2	3,0	060LP1,2	✓	✓	✓
1,5	3,0	060LP1,5	✓	✓	
1,8	4,5	060LP1,8	✓	✓	
2,0	4,5	060LP2,0	✓	✓	

060LPX

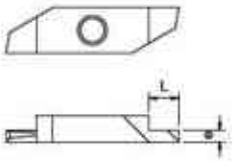
Back turning insert 0° with chip breaker
Drehplatte hinten 0° mit Spanbrecher
Tourneur arrière 0° avec brise-copeau



●	L	Article nr. Artikel Nr. N° Article	BI30
0,8	2,5	060LPX0,8	✓
1,0	2,5	060LPX1,0	✓
1,2	3,0	060LPX1,2	✓
1,5	3,0	060LPX1,5	✓
1,8	4,5	060LPX1,8	✓

061L

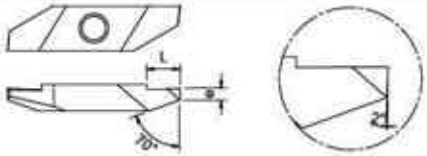
Back turning insert with «parisian cut»
Drehplatte hinten mit «Pariserschliff»
Tourneur arrière avec «coupe parisienne»



●	L	Article nr. Artikel Nr. N° Article	BI20	BI40	TIN
0,5	1,5	061L0,5		✓	
0,8	2,0	061L0,8		✓	
1,0	2,5	061L1,0	✓	✓	
1,2	3,0	061L1,2	✓	✓	✓
1,5	3,0	061L1,5	✓	✓	✓
1,8	4,5	060L1,8	✓	✓	
2,0	4,5	061L2,0	✓	✓	✓
2,5	4,5	061L2,5	✓	✓	✓

062L

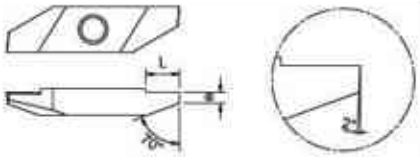
Back turning insert 0° with «parisian cut»
Drehplatte hinten 0° mit «Pariserschliff»
Tourneur arrière 0° avec «coupe parisienne»



●	L	Article nr. Artikel Nr. N° Article	BI20	BI40
1,5	4,5	062L1,5	✓	✓

062LO

Back turning insert 2°
Drehplatte hinten 2°
Tourneur arrière 2°



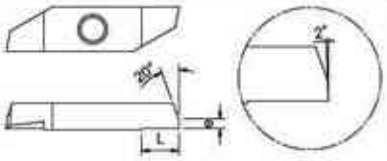
●	L	Article nr. Artikel Nr. N° Article	BI20
1,5	4,0	062LO	✓

Front turning
Drehen vor dem Bund
Tournage avant

L : Left machining
L : Linke Bearbeitung
L : Usinage à gauche

064L

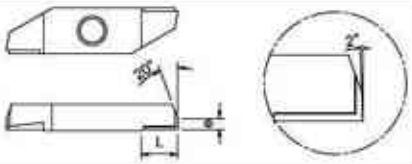
Front turning insert
Drehplatte vorne
Tourneur avant



●	L	Article nr. Artikel Nr. N° Article	BI20	BI40	TIN
1,5	5,0	064L3,5	✓	✓	✓

064LX

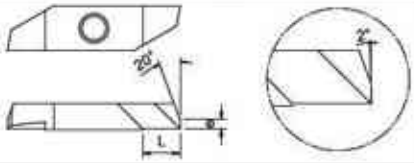
Front turning insert with chip breaker
Drehplatte vorne mit Spanbrecher
Tourneur avant avec brise-copeau



●	L	Article nr. Artikel Nr. N° Article	BI30	BI40
1,5	5,0	064LX3,5	✓	✓

065L

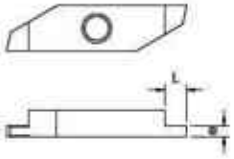
Front turning insert with chip roller
Drehplatte vorne mit Spanroller
Tourneur avant avec roule-copeau



e	L	Article nr. Artikel Nr. N° Article	BI20	BI40	TiN
1,5	5,0	065L3,5	✓	✓	✓

070L

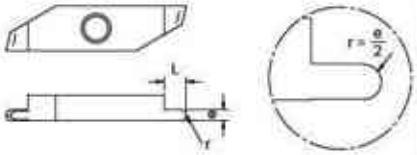
Grooving insert
Einstechplatte
Plaquette de rainurage



e	L	Article nr. Artikel Nr. N° Article	BI20	BI40
0,3	1,0	070L0,3	✓	
0,35	1,0	070L0,35		✓
0,4	2,0	070L0,4		✓
0,5	2,0	070L0,5	✓	✓
0,6	2,0	070L0,6	✓	
0,7	2,5	070L0,7	✓	
0,8	2,0	070L0,8	✓	✓
0,9	2,5	070L0,9	✓	
1,0	3,0	070L1,0	✓	✓
1,1	3,0	070L1,1	✓	
1,2	3,0	070L1,2	✓	
1,3	3,0	070L1,3	✓	
1,4	3,0	070L1,4	✓	
1,5	3,0	070L1,5	✓	

071L

Grooving insert with radius
Einstechplatte mit Radius
Plaquette de rainurage avec rayon



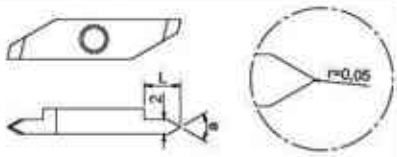
e	L	r	Article nr. Artikel Nr. N° Article	BI40	BI40
0,3	1,5	0,15	071L0,3 - r 0,15 -		✓
0,5	2,0	0,25	071L0,5 - r 0,25 -		✓
0,6	2,0	0,3	071L0,6 - r 0,3 -	✓	✓
0,8	2,0	0,4	071L0,8 - r 0,4 -		✓
1,0	3,0	0,5	071L1,0 - r 0,5 -		✓
1,2	3,0	0,6	071L1,2 - r 0,6 -		✓
1,5	3,0	0,75	071L1,5 - r 0,75 -		✓
2,0	3,0	1,0	071L2,0 - r 1,0 -		✓
2,5	3,5	1,25	071L2,5 - r 1,25 -		✓

Threading
Gewindestrehlen
Filetage

L : Left machining
L : Linke Bearbeitung
L : Usinage à gauche

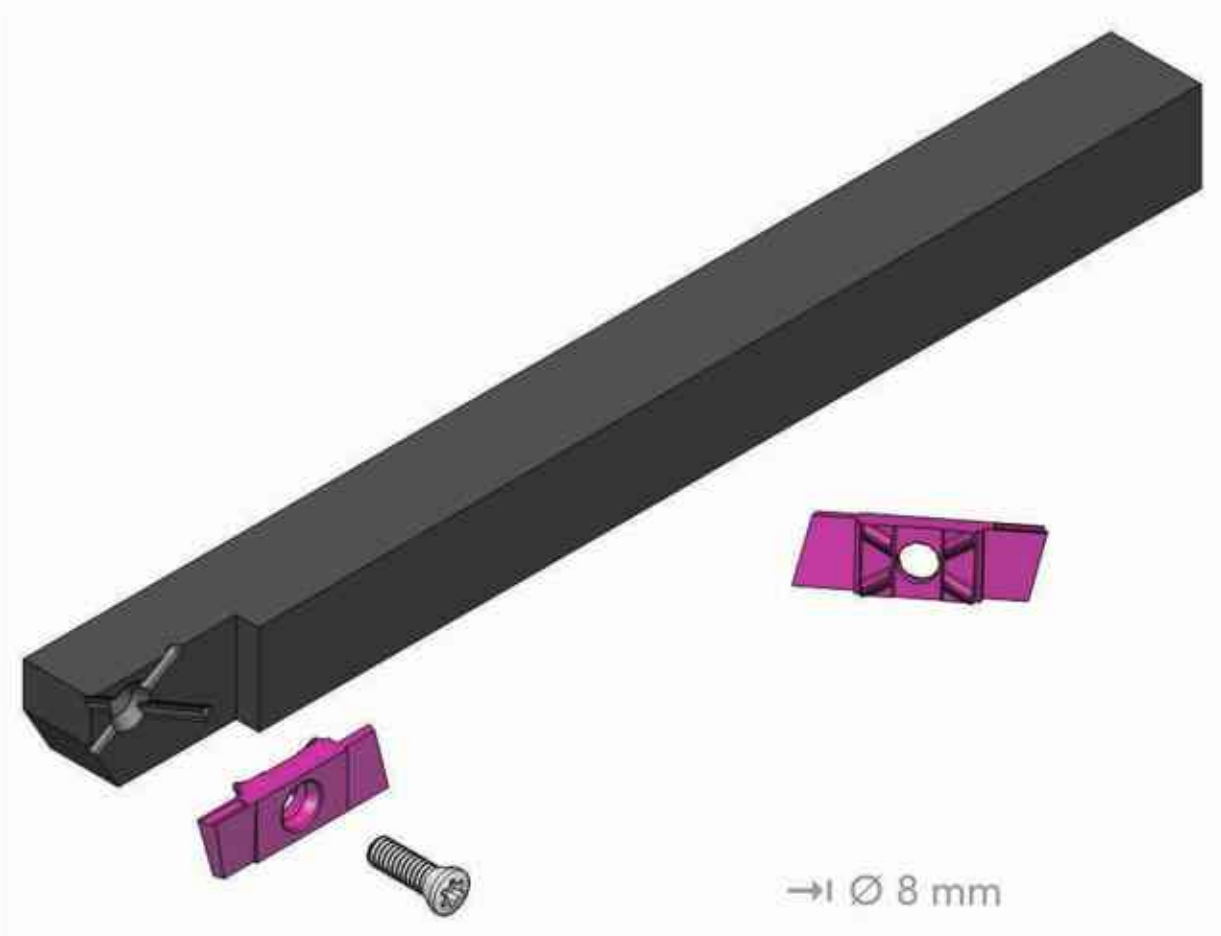
080L

Threading insert with partial profile
Gewindeplatte mit Teilprofil
Fileteur avec profil partiel

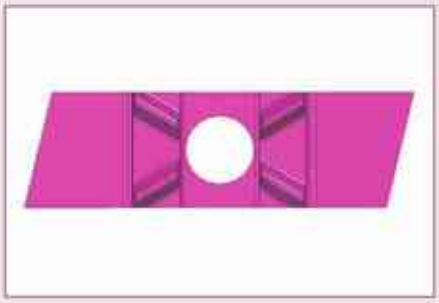


L	a	Article nr. Artikel Nr. N° Article	BI20	BI40
5,0	55°	080L - 55° -	✓	✓
5,0	60°	080L - 60° -	✓	✓

400 line



Presentation of 400 line
Vorstellung der 400 line
Présentation de la 400 line



Advantages of 400 line

- X-Centering technology :
  - Repetitiveness of the cutting edge ± 0,01 mm.
  - Positioning in all axes.
  - Insert turning without having to remove the screw.
  - The screw is free of all radial stress.
- 2 cutting edges available.
- Carbide grade « K12 » available.

Vorteile der 400 line

- X-Centering Technologie.
  - Wiederholgenauigkeit der Schneidkante ± 0,01 mm.
  - Positionierung in allen Achsen.
  - Wenden der Wendeplatte ohne Entfernen der Schraube.
  - Keine radialen Spannungen.
- 2 verfügbare Schneidkanten.
- In Hartmetallqualität « K12 » verfügbar.

Avantages de la 400 line

- Technologie X-Centering.
  - Répétitivité de l'arête de coupe ± 0,01 mm.
  - Positionnement dans tous les axes.
  - Retournement de la plaquette sans enlever la vis.
  - La vis est libre de toute tension radiale.
- 2 arêtes de coupe.
- Carbure « K12 » disponible.

Coating of inserts
Beschichtung der Wendeplatten
Revêtement des plaquettes

✓ = Available
✓ = Verfügbar
✓ = Disponible

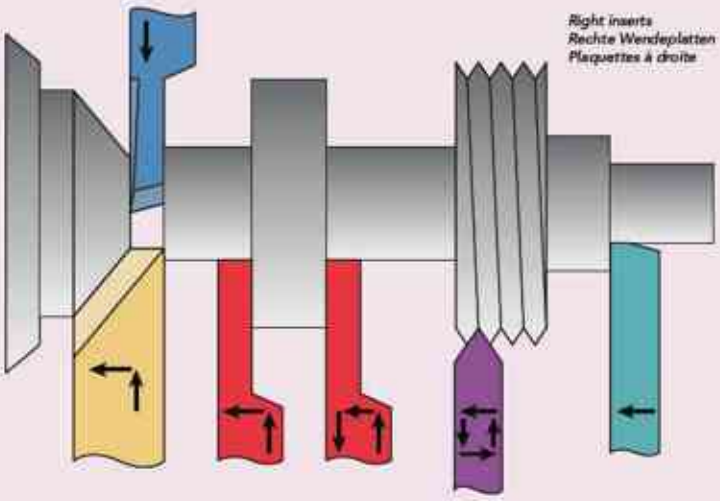
Designation Bezeichnung Désignation	Description Beschreibung Description
K12	**Without coating | K12 carbide** Available only for blank inserts. **Ohne Beschichtung | K12 Hartmetall** Nur für Rohling Wendeplatten verfügbar. **Sans revêtement | Carbure K12** Disponible uniquement pour les plaquettes ébauches.
K18	**Without coating | K18 carbide** Available only for blank inserts. **Ohne Beschichtung | K18 Hartmetall** Nur für Rohling Wendeplatten verfügbar. **Sans revêtement | Carbure K18** Disponible uniquement pour les plaquettes ébauches.
K20	**Without coating | K20 carbide.** Standard carbide for the 400line. **Ohne Beschichtung | K20 Hartmetall.** Standard Hartmetall für die 400line. **Sans revêtement | Carbure K20.** Carbure standard pour la gamme 400line.
BI40	**AlTi(C)N-based** • Universal coating. • High hardness. • Very smooth surface finish. • Suitable for steel and stainless steel. **AlTi(C)N-Basis** • Universalbeschichtung. • Hohe Schichthärte. • Sehr glatte Oberfläche. • Geeignet für Stahl und Edelstahl. **Base AlTi(C)N** • Revêtement universel. • Dureté élevée. • Bon glissement du copeau. • Adapté à l'acier et à l'acier inox.

Designation Bezeichnung Désignation	Description Beschreibung Description
BI90	**AlTi(C)N-based** • Universal coating. • Good oxidation resistance. • High heat resistance. • Suitable for steel and stainless steel. **AlTi(C)N-Basis** • Universalbeschichtung. • Gute Oxidationsbeständigkeit. • Hohe Hitzebeständigkeit. • Ideal für Stahl und Edelstahl. **Base AlTi(C)N** • Revêtement universel. • Bonne résistance à l'oxydation. • Haute résistance à la chaleur. • Adapté à l'acier et à l'acier inox.

Field of application of 400 line
Anwendungsbereich der 400 line
Champ d'application de la 400 line

Maximum cutting-off
Maximaler Abstechdurchmesser
Tronçonnage maximum
Ø 8 mm

Maximum turning
Maximale Spantiefe
Tournage maximum
ap 2 mm



Cutting off
Abstechen
Tronçonnage

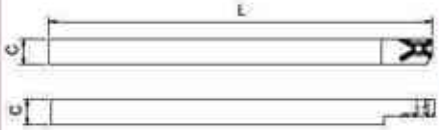
Plunging-Turning
Einstechen-Drehen
Fonçage-Tournage

Plunging-Turning
Einstechen-Drehen
Fonçage-Tournage

Turning
Drehen
Tournage

Threading
Gewindestrehlen
Filetage

4xxR	Right tool-holder Werkzeughalter rechts Porte-outil à droite	Section C Querschnitt C Section C	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
		7 x 7	124	407R
		8 x 8	124	408R
		8 x 8	100	408R-100
		10 x 10	124	410R
		12 x 12	124	412R
		16 x 16	124	416R

4xxL	Left tool holder Werkzeughalter links Porte-outil à gauche	Section C Querschnitt C Section C	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
		6 x 6	124	406L
		7 x 7	124	407L
		8 x 8	124	408L
		10 x 10	124	410L
		12 x 12	124	412L
		16 x 16	124	416L

	Turning tool holders for counter-operation Drehwerkzeughalter zur Rückseitenbearbeitung Porte-outils de tournage pour contre-opération
	See the «Cylindrical turning tool holders» documentation for further information. *Siehe die «Zylindrische Drehwerkzeughalter» Dokumentation für weitere Informationen.* *Voir la documentation «Porte-outils de tournage cylindriques» pour plus d'informations.*

001-1	Key Schlüssel Clé	Article nr. Artikel Nr. N° Article
	Torx 8	001-1

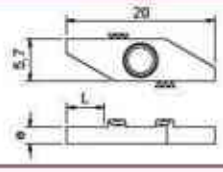
001-4	Screw for standard tool holder Schraube für Standard-Werkzeughalter Vis pour porte-outil standard	Article nr. Artikel Nr. N° Article
	M3,0 x 7,5	001-4

Blank
Rohling
Ebauche

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

440R

Blank insert
Rohling
Plaquette ébauche



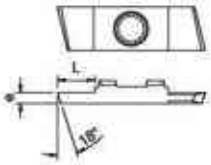
e	L	Article nr. Artikel Nr. N° Article	K12	K18	K20	BI40	BI90
0,7	2,5	440R0,7	✓	✓	✓	✓	✓
1,2	3,0	440R1,2	✓	✓	✓	✓	✓
1,5	4,0	440R1,5	✓	✓	✓	✓	✓
1,7	5,0	440R1,7	✓	✓	✓	✓	✓
2,2	—	440R2,2	✓	✓	✓	✓	✓

Guide bush cut off Ø 8 mm
Abstechen an der Führungsbüchse Ø 8 mm
Tronçonnage côté canon Ø 8 mm

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

450R

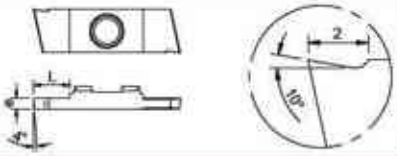
Cutting insert 18°
Abstechplatte 18°
Tronçonneur 18°



e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
0,5	3,0	450R0,5	✓	✓
0,7	4,0	450R0,7	✓	✓
0,8	4,0	450R0,8	✓	✓
1,0	4,0	450R1,0	✓	✓
1,2	5,0	450R1,2	✓	✓
1,5	5,0	450R1,5	✓	✓
2,0	5,0	450R2,0	✓	✓

451R

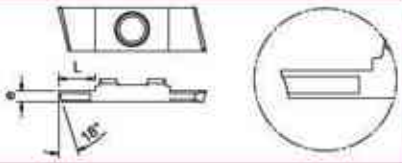
Cutting insert with chip breaker
Abstechplatte mit Spanbrecher
Tronçonneur avec brise-copeau



e	L	Article nr. Artikel Nr. N° Article	BI90
1,0	4,0	451R1,0	✓
1,2	4,0	451R1,2	✓
1,5	4,0	451R1,5	✓

454R

Cutting insert with chip roller
Abstechplatte mit Spanroller
Tronçonneur avec roule-copeau



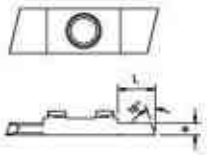
e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
0,8	4,0	454R0,8	✓	✓
1,0	4,0	454R1,0	✓	✓
1,2	5,0	454R1,2	✓	✓
1,5	5,0	454R1,5	✓	✓
1,8	5,0	454R1,8	✓	✓
2,0	5,0	454R2,0	✓	✓

Sub spindle cut off Ø 8 mm
Abstechen an der Abgreifzange Ø 8 mm
Tronçonnage côte prise de pièce Ø 8 mm

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

453R

Opposite cutting insert
Umgekehrte Abstechplatte
Tronçonneur inversé



e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
0,5	3,0	453R0,5	✓	✓
0,8	4,0	453R0,8	✓	✓
1,0	4,0	453R1,0	✓	✓
1,2	5,0	453R1,2	✓	✓
1,5	5,0	453R1,5	✓	✓
2,0	5,0	453R2,0	✓	

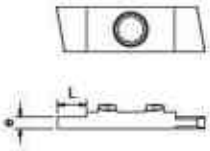
Use with 4xxL tool holders
Verwendung mit 4xxL Werkzeughalter
Utilisation avec les porte-outils 4xxL

Back turning
Drehen hinter dem Bund
Tournage arrière

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

460RP

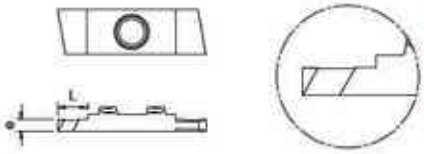
Back turning insert 0°
Drehplatte hinten 0°
Tourneur arrière 0°



e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
0,4	2,0	460RP0,4	✓	✓
0,5	2,0	460RP0,5	✓	✓
0,6	2,0	460RP0,6	✓	✓
0,7	2,0	460RP0,7	✓	✓
0,8	2,0	460RP0,8	✓	✓
1,0	2,0	460RP1,0	✓	✓
1,2	3,0	460RP1,2	✓	✓
1,5	3,0	460RP1,5	✓	✓
2,0	4,0	460RP2,0	✓	✓

461R

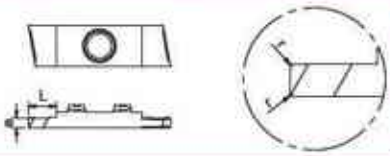
Back turning insert with «parisian cut»
Drehplatte hinten mit «Pariserschliff»
Tourneur arrière avec «coupe parisienne»



e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
0,5	1,5	461R0,5	✓	
0,6	1,5	461R0,6	✓	✓
0,7	1,5	461R0,7	✓	
0,8	1,7	461R0,8	✓	✓
0,9	1,7	461R0,9	✓	
1,0	1,7	461R1,0	✓	✓
1,2	2,0	461R1,2	✓	✓
1,5	3,0	461R1,5	✓	✓
2,0	3,5	461R2,0	✓	✓

461R - r

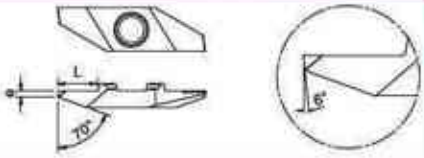
Back turning insert with «parisian cut» and radius
Drehplatte hinten mit «Pariserschliff» und Radius
Tourneur arrière avec «coupe parisienne» et rayon



e	L	r	Article nr. Artikel Nr. N° Article	BI40
1,0	1,7	0,1	461R1,0 - r - 0,1	✓
1,3	2,5	0,1	461R1,3 - r - 0,1	✓
1,5	3,0	0,1	461R1,5 - r - 0,1	✓
1,5	3,0	0,2	461R1,5 - r - 0,2	✓

462R

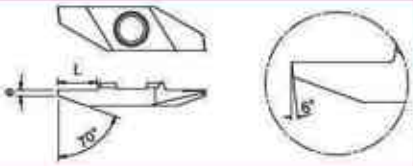
Back turning insert with «parisian cut»
Drehplatte hinten mit «Pariserschliff»
Tourneur arrière avec «coupe parisienne»



•	L	Article nr. Artikel Nr. N° Article	B140
0,5	3,0	462R0,5	✓
0,8	3,0	462R0,8	✓

462RO

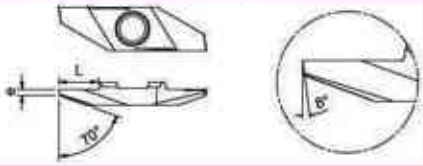
Back turning insert
Drehplatte hinten
Tourneur arrière



•	L	Article nr. Artikel Nr. N° Article	B140	B190
0,2	3,0	462RO0,2	✓	✓
0,3	3,0	462RO0,3		✓
0,5	3,0	462RO0,5	✓	✓

463R

Back turning insert with chip breaker
Drehplatte hinten mit Spanbrecher
Tourneur arrière avec brise-copeau



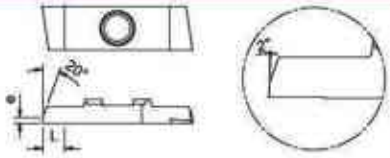
•	L	Article nr. Artikel Nr. N° Article	B140	B190
0,5	4,0	463R0,5	✓	✓

Front turning
Drehen vorne
Tournage avant

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

464R

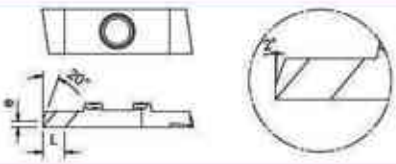
Front turning insert
Drehplatte vorne
Tourneur avant



e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
0,8	5,0	464R	✓	✓

465R

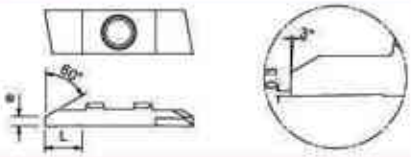
Front turning insert with «parisian cut»
Drehplatte vorne mit «Pariserschliff»
Tourneur avant avec «coupe parisienne»



e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
0,8	5,0	465R	✓	✓

468R

Front turning insert
Drehplatte vorne
Tourneur avant



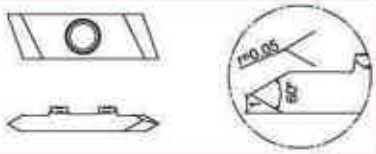
L	Article nr. Artikel Nr. N° Article	BI40	BI90
5,0	468R	✓	✓

Threading
Gewindestrehlen
Filetage

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

480R

Threading insert with partial profile
Gewindeplatte mit Teilprofil
Fileteur avec profil partiel



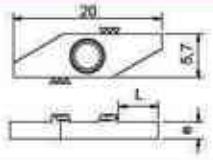
Article nr. Artikel Nr. N° Article	BI40	BI90
480R - 60° -	✓	✓

Blank
Rohling
Ebauche

L : Left machining
L : Linke Bearbeitung
L : Usinage à gauche

440L

Blank insert
Rohling
Plaquette ébauche



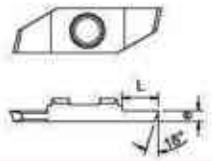
e	L	Article nr. Artikel Nr. N° Article	K12	K18	K20	BI40	BI90
0,7	2,5	440L0,7	✓	✓	✓	✓	✓
1,2	3,0	440L1,2	✓	✓	✓	✓	✓
1,7	5,0	440L1,7	✓	✓	✓	✓	✓
2,2	—	440L2,2	✓	✓	✓	✓	✓

Guide bush cut off Ø 8 mm
Abstechen an der Führungsbüchse Ø 8 mm
Tronçonnage côté canon Ø 8 mm

L : Left machining
L : Linke Bearbeitung
L : Usinage à gauche

450L

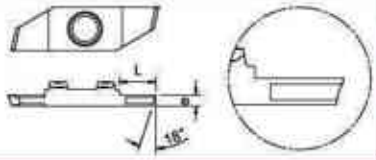
Cutting insert 18°
Abstechplatte 18°
Tronçonneur 18°



e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
0,8	4,0	450L0,8	✓	✓
1,0	4,0	450L1,0	✓	✓
1,2	5,0	450L1,2	✓	✓
1,5	5,0	450L1,5	✓	✓
1,8	5,0	450L1,8	✓	✓
2,0	5,0	450L2,0	✓	✓

454L

Cutting insert with chip roller
Abstechplatte mit Spanroller
Tronçonneur avec roule-copeau



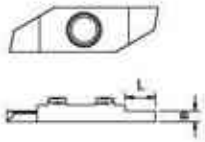
e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
1,0	4,0	454L1,0	✓	✓
1,2	5,0	454L1,2	✓	✓
1,5	5,0	454L1,5	✓	✓
1,8	5,0	454L1,8	✓	
2,0	5,0	454L2,0	✓	

Back turning
Drehen hinter dem Bund
Tournage arrière

L : Left machining
L : Linke Bearbeitung
L : Usinage à gauche

460LP

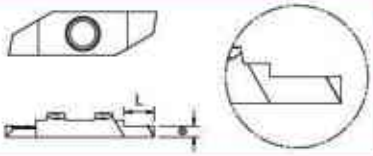
Back turning insert 0°
Drehplatte hinten 0°
Tourneur arrière 0°



e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
0,4	2,0	460LP0,4	✓	
0,5	2,0	460LP0,5	✓	
0,6	2,0	460LP0,6	✓	
0,8	2,0	460LP0,8	✓	
1,0	2,0	460LP1,0	✓	✓
1,2	3,0	460LP1,2	✓	
1,5	3,0	460LP1,5	✓	
2,0	4,0	460LP2,0	✓	

461L

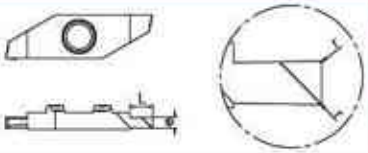
Back turning insert with «parisian cut»
Drehplatte hinten mit «Pariserschliff»
Tourneur arrière avec «coupe parisienne»



e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
0,7	1,5	461L0,7		✓
1,0	1,7	461L1,0	✓	✓
1,2	2,0	461L1,2	✓	✓
1,5	3,0	461L1,5	✓	
2,0	3,5	461L2,0	✓	

461L - r

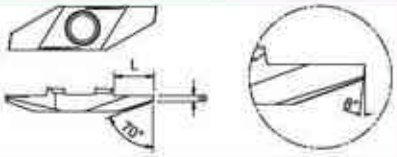
Back turning insert with «parisian cut» and radius
Drehplatte hinten mit «Pariserschliff» und Radien
Tourneur arrière avec «coupe parisienne» et rayons



e	L	r	Article nr. Artikel Nr. N° Article	BI40
1,0	1,7	0,1	461L1,0 - r 0,1 -	✓
1,2	2,0	0,1	461L1,2 - r 0,1 -	✓
1,3	2,5	0,1	461L1,3 - r 0,1 -	✓
1,5	3,0	0,1	461L1,5 - r 0,1 -	✓
1,6	3,0	0,1	461L1,6 - r 0,1 -	✓

463L

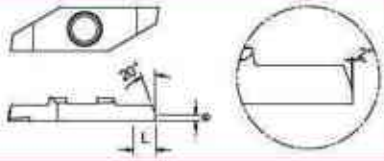
Back turning insert with chip breaker
Drehplatte hinten mit Spanbrecher
Tourneur arrière avec brise-copeau



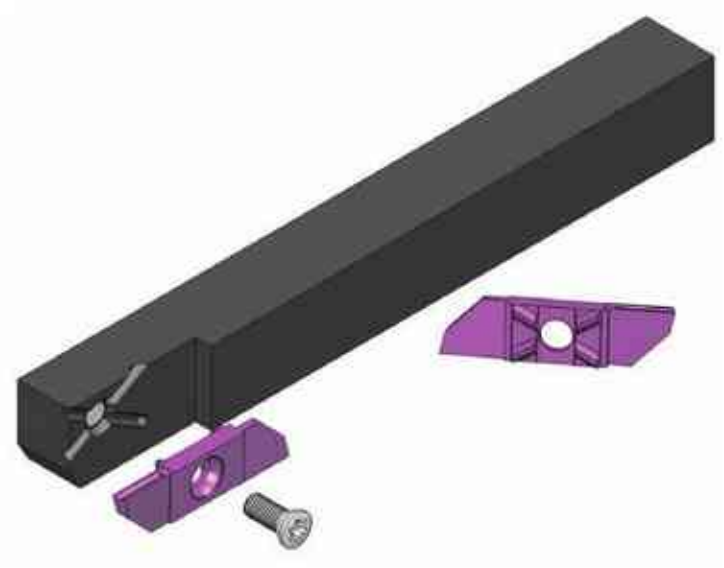
e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
0,5	4,0	463L0,5	✓	✓

Front turning
Drehen vor dem Bund
Tournage avant

L : Left machining
L : Linke Bearbeitung
L : Usinage à gauche

464L	Front turning insert Drehplatte vorne Tourneur avant					
		ø	L	Article nr. Artikel Nr. N° Article	BI40	BI90
		0,8	5,0	464L	✓	✓

800 line



800

Inserts for 10x10, 12x12, 16x16 mm section tool holders.

Wendeplatten für Werkzeughalter mit Querschnitt 10x10, 12x12, 16x16 mm

.

Plaquettes pour porte-outils de section 10x10, 12x12, 16x16 mm.

⇥ Ø 18 mm

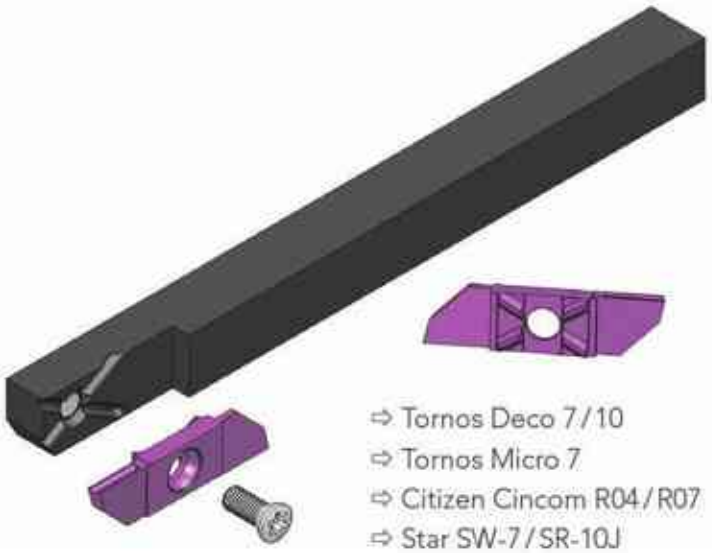
800-8

Cut off inserts (height 7,9 mm) only for 8x8 mm section tool holders.

Abstechplatten (Höhe 7,9 mm) nur für Werkzeughalter mit Querschnitt 8x8 mm.

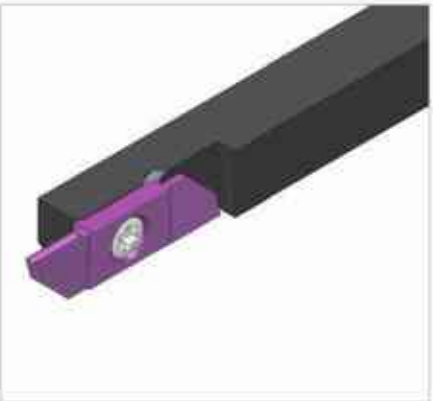
Plaquettes de tronçonnage (hauteur 7,9 mm) uniquement pour porte-outils de section 8x8 mm.

⇥ Ø 12 mm



- ⇨ Tornos Deco 7/10
- ⇨ Tornos Micro 7
- ⇨ Citizen Cincom R04/R07
- ⇨ Star SW-7/SR-10J

Presentation of 800 line
Vorstellung der 800 line
Présentation de la 800 line



Advantages of 800 line

- X-Centering technology :
  - Repetitiveness of the cutting edge ± 0,01 mm.
  - Positioning in all axes.
  - Insert turning without having to remove the screw.
  - The screw is free of all radial stress.
- 2 cutting edges available.
- Inserts for 8x8 mm tool holders.

Vorteile der 800 line

- X-Centering Technologie.
  - Wiederholgenauigkeit der Schneidkante ± 0,01 mm.
  - Positionierung in allen Achsen.
  - Wenden der Wendeplatte ohne Entfernen der Schraube.
  - Keine radialen Spannungen.
- 2 verfügbare Schneidkanten.
- Wendeplatten für Werkzeughalter 8 x 8 mm erhältlich.

Avantages de la ligne 800 line

- Technologie X-Centering.
  - Répétitivité de l'arête de coupe ± 0,01 mm.
  - Positionnement dans tous les axes.
  - Retournement de la plaquette sans enlever la vis.
  - La vis est libre de toute tension radiale.
- 2 arêtes de coupe.
- Plaquettes pour porte-outils 8x8 mm.

Coating of inserts
Beschichtung der Wendeplatten
Revêtement des plaquettes

✓ = Available
✓ = Verfügbar
✓ = Disponible

Designation Bezeichnung Désignation	Description Beschreibung Description
K20	**Without coating | K20 carbide** **Ohne Beschichtung | K20 Hartmetall** **Sans revêtement | Carbure K20**
BI40	**AlTi(C)N-based** • Universal coating. • High hardness. • Very smooth surface finish. • Suitable for steel and stainless steel. **AlTi(C)N-Basis** • Universalbeschichtung. • Hohe Schichthärte. • Sehr glatte Oberfläche. • Geeignet für Stahl und Edelstahl. **Base AlTi(C)N** • Revêtement universel. • Dureté élevée. • Bon glissement du copeau. • Adapté à l'acier et à l'acier inox.
BI90	**AlTiN-based** • Universal coating. • Good oxidation resistance. • High heat resistance. • Suitable for steel and stainless steel. **AlTiN-Basis** • Universalbeschichtung. • Gute Oxidationsbeständigkeit. • Hohe Hitzebeständigkeit. • Ideal für Stahl und Edelstahl. **BaseAlTiN** • Revêtement universel. • Bonne résistance à l'oxydation. • Haute résistance à la chaleur.. • Adapté à l'acier et à l'acier inox.

Designation Bezeichnung Désignation	Description Beschreibung Description
TIN	TiN • Universal coating. TiN • Universalbeschichtung. TiN • Revêtement universel.

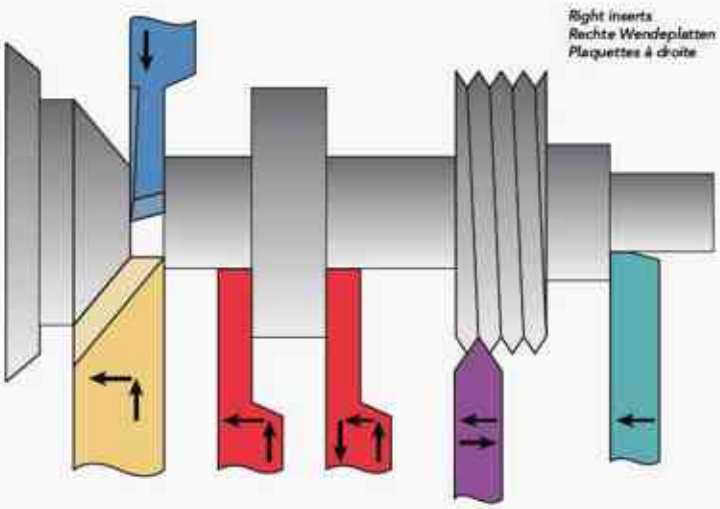
Insert 800 : field of application
Wendeplatten 800 : Anwendungsbereiche
Plaquettes 800 : champ d'application

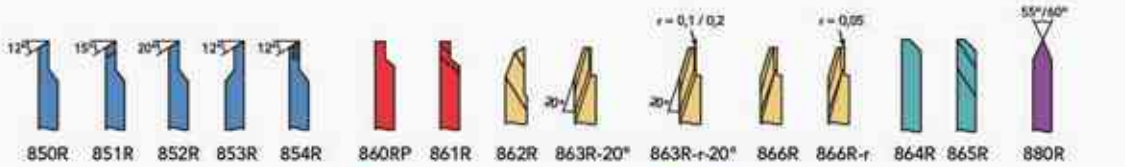
Maximum cutting-off
Maximaler Abstechdurchmesser
Tronçonnage maximum

Ø 18 mm

Maximum turning
Maximale Spantiefe
Tournage maximum

ap 5 mm





Cutting off
Abstechen
Tronçonnage

Plunging-Turning
Einstechen-Drehen
Fonçage-Tournage

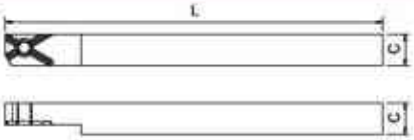
Plunging-Turning
Einstechen-Drehen
Fonçage-Tournage

Turning
Drehen
Tournage

Threading
Gewindestrehlen
Filetage

8xxR

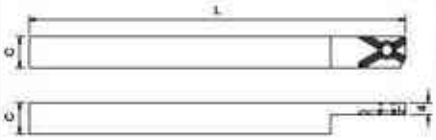
Right tool holder
Werkzeughalter rechts
Porte-outil à droite



Section C Querschnitt C Section C	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
10 x 10	124	810R
12 x 12	124	812R
16 x 16	124	816R
20 x 20	100	820R

8xxR4

Right «Pick-up» tool holder
«Pick-up» Werkzeughalter rechts
Porte-outil «Pick-up» à droite

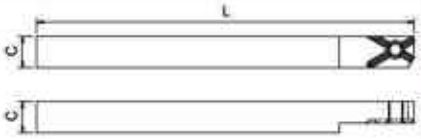


Section C Querschnitt C Section C	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
10 x 10	124	810R4
12 x 12	124	812R4
16 x 16	124	816R4

Use with 853R inserts
Verwendung mit 853R Wendeplatten
Utilisation avec les plaquettes 853R

8xxL

Left tool holder
Werkzeughalter links
Porte-outil à gauche



Section C Querschnitt C Section C	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
10 x 10	124	810L
12 x 12	124	812L
16 x 16	124	816L
20 x 20	100	820L

Tool holders with internal coolant
Werkzeughalter mit Innenkühlung
Porte-outils avec arrosage intégré

See the «Tool holders with internal coolan» documentation for further information.
Siehe die «Werkzeughalter mit Innenkühlung» Dokumentation für weitere Informationen.
Voir la documentation «Porte-outils avec arrosage intégré» pour plus d'informations.

100-1

Key
Schlüssel
Clé

	Article nr. Artikel Nr. N° Article
Torx 15	100-1

100-4

Screw for standard tool holder
Schraube für Standard Werkzeughalter
Vis pour porte-outil standard

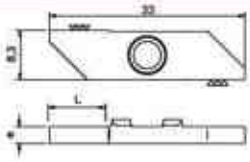
	Article nr. Artikel Nr. N° Article
M4,5 x 10,5	100-4

Blank
Rohling
Ebauche

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

840R

Blank insert
Rohling Wendeplatte
Plaquette ébauche



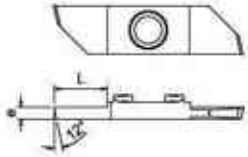
e	L	Article nr. Artikel Nr. N° Article	K20	BI40	BI90
1,7	5,0	840R1,7	✓	✓	✓
2,2	9,5	840R2,2	✓	✓	✓
2,8	—	840R2,8	✓	✓	✓

Guide bush cut off Ø 18 mm
Abstechen an der Führungsbüchse Ø 18 mm
Tronçonnage côté canon Ø 18 mm

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

850R

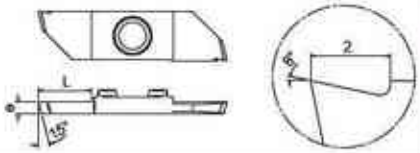
Cutting insert 12°
Abstechplatte 12°
Tronçonneur 12°



e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
0,8	5,0	850R0,8	✓	✓
1,0	5,0	850R1,0	✓	✓
1,2	6,0	850R1,2	✓	✓
1,5	7,5	850R1,5	✓	✓
1,8	7,5	850R1,8	✓	
2,0	9,0	850R2,0	✓	✓
2,5	9,0	850R2,5	✓	✓

851R

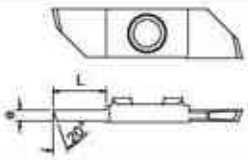
Cutting insert 15° with chip breaker
Abstechplatte 15° mit Spanbrecher
Tronçonneur 15° avec brise-copeau



e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
1,5	7,5	851R1,5	✓	
2,0	9,0	851R2,0	✓	✓

852R

Cutting insert 20°
Abstechplatte 20°
Tronçonneur 20°



e	L	Article nr. Artikel Nr. N° Article	BI40	B90
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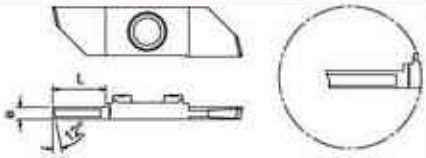
1,2	6,0	852R1,2	✓	
1,5	7,5	852R1,5	✓	✓
2,0	9,0	852R2,0	✓	✓

854R

Cutting insert with chip roller
Abstechplatte mit Spanroller
Tronçonneur avec roule-copeau



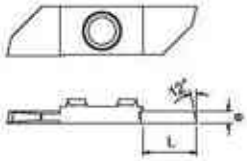
e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
1,0	5,0	854R1,0	✓	✓
1,2	6,0	854R1,2	✓	✓
1,5	7,5	854R1,5	✓	✓
2,0	10,0	854R2,0	✓	✓
2,5	10,0	854R2,5	✓	✓

Sub spindle cut off Ø 18 mm
Abstechen an der Abgreifzange Ø 18 mm
Tronçonnage côte prise de pièce Ø 18 mm

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

853R

Opposite cutting insert
Umgekehrte Abstechplatte
Tronçonneur inversé



e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
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1,2	6,0	853R1,2	✓	✓
1,5	7,5	853R1,5	✓	✓
2,0	9,0	853R2,0	✓	✓
2,5	9,0	853R2,5	✓	✓

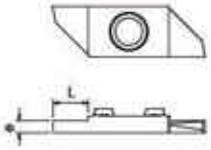
Use with 8xxL tool holders
Verwendung mit 8xxL Werkzeughalter
Utilisation avec les porte-outils 8xxL

Back turning
Drehen hinter dem Bund
Tournage arrière

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

860RP

Back turning insert 0°
Drehplatte hinten 0°
Tourneur arrière 0°



e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
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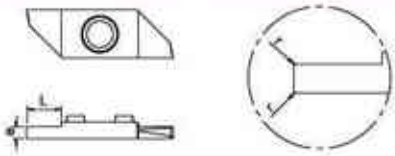
1,0	4,0	860RP1,0	✓	✓
1,2	4,0	860RP1,2	✓	✓
1,5	5,0	860RP1,5	✓	✓
2,0	5,0	860RP2,0	✓	✓
2,5	5,0	860RP2,5	✓	✓

860RP - r

Back turning insert 0° with radius
Drehplatte hinten 0° mit Radius
Tourneur arrière 0° avec rayon



e	L	r	Article nr. Artikel Nr. N° Article	BI40	BI90
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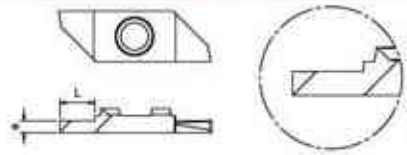
1,5	5	0,2	860RP1,5 - r 0,2 -	✓	✓
2,0	5	0,1	860RP2,0 - r 0,1 -	✓	✓
2,0	5	0,2	860RP2,0 - r 0,2 -	✓	✓

861R

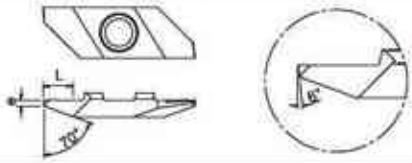
Back turning insert with «parisian cut»
Drehplatte hinten mit «Pariserschliff»
Tourneur arrière avec «coupe parisienne»



ø	L	Article nr. Artikel Nr. N° Article	BI40	BI90
1,0	4,0	861R1,0	✓	✓
1,2	4,0	861R1,2	✓	✓
1,5	4,0	861R1,5	✓	✓
1,8	6,0	861R1,8	✓	
2,0	6,0	861R2,0	✓	✓
2,5	6,0	861R2,5	✓	✓

862R

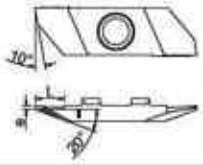
Back turning insert with «parisian cut»
Drehplatte hinten mit «Pariserschliff»
Tourneur arrière avec «coupe parisienne»



ø	L	Article nr. Artikel Nr. N° Article	BI40	BI90
0,5	5,0	862R0,5	✓	✓
1,0	5,0	862R1,0	✓	✓

863R - 20°

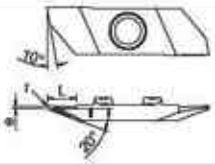
Back turning insert 20° with chip roller
Drehplatte hinten 20° mit Spanroller
Tourneur arrière 20° avec roule-copeau



ø	L	Article nr. Artikel Nr. N° Article	BI90
0,6	5,0	863R0,6 - 20° -	✓

863R - r - 20°

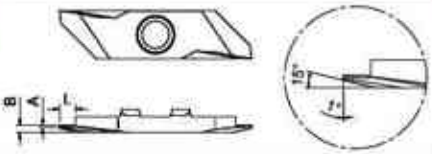
Back turning insert 20° with chip roller and radius
Drehplatte hinten 20° mit Spanroller und Radius
Tourneur arrière 20° avec roule-copeau et rayon



ø	L	r	Article nr. Artikel Nr. N° Article	BI90
0,6	5,0	0,1	863R0,6 - r 0,1 - 20° -	✓

866R

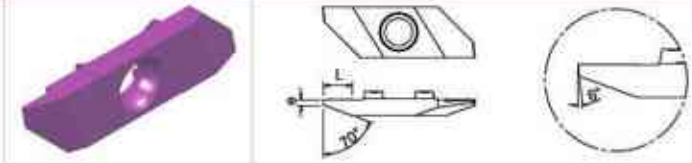
Back turning insert with «W» chip roller
Drehplatte hinten mit «W» Spanroller
Tourneur arrière avec roule-copeau «W»



A	B	L	Article nr. Artikel Nr. N° Article	BI40	BI90	TIN
0,5	1,3	2,5	866R2,5	✓	✓	✓

862RO

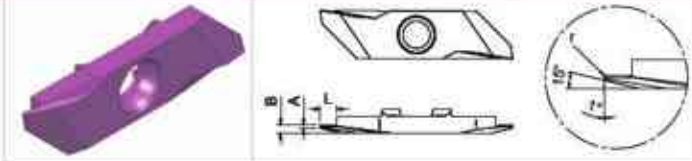
Back turning insert
Drehplatte hinten
Tourneur arrière



e	L	Article nr. Artikel Nr. N° Article	BI40
0,5	5,0	862RO0,5	✓
1,0	5,0	862RO1,0	✓

866R - r

Back turning insert with «W» chip roller and radius
Drehplatte hinten mit «W» Spanroller und Radius
Tourneur arrière avec roule-copeau «W» et rayon



A	B	L	r	Article nr. Artikel Nr. N° Article	BI40	TIN
0,5	1,3	2,5	0,05	866R2,5 - r 0,05 -	✓	✓

Front turning
Drehen vor dem Bund
Tournage avant

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

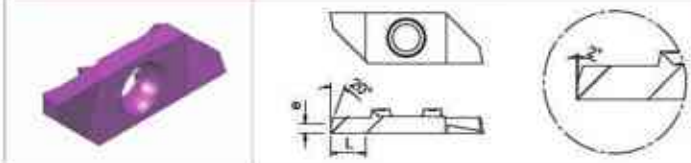
864R

Front turning insert
Drehplatte vorne
Tourneur avant

e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
1,5	6,0	864R	✓	✓

865R

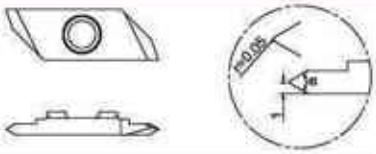
Front turning insert with «parisian cut»
Drehplatte vorne mit «Pariserschliff»
Tourneur avant avec «coupe parisienne»



e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
1,5	6,0	865R	✓	✓

Threading
Gewindestrehlen
Filetage

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

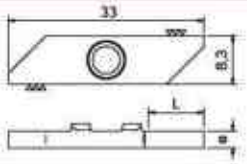
880R	Threading insert with partial profile Gewindeplatte mit Teilprofil Fileteur avec profil partiel	a	Article nr. Artikel Nr. N° Article	BI40	BI90
		55°	880R - 55° -	✓	✓
		60°	880R - 60° -	✓	✓

Blank
Rohling
Ebauche

L: Left machining
L: Linke Bearbeitung
L: Usinage à gauche

840L

Blank insert
Rohling
Plaquette ébauche



e	L	Article nr. Artikel Nr. N° Article	K20	BI40	BI90
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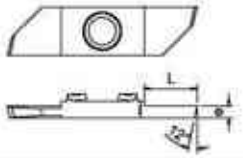
2,2	9,5	840L2,2	✓	✓	✓
2,8	—	840L2,8	✓	✓	✓

Guide bush cut off Ø 18 mm
Abstechen an der Führungsbüchse Ø 18 mm
Tronçonnage côté canon Ø 18 mm

L: Left machining
L: Linke Bearbeitung
L: Usinage à gauche

850L

Cutting insert 12°
Abstechplatte 12°
Tronçonneur 12°



e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
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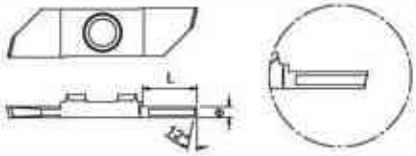
1,2	6,0	850L1,2	✓	✓
1,5	7,5	850L1,5	✓	✓
2,0	9,0	850L2,0	✓	✓
2,5	9,0	850L2,5	✓	✓

854L

Cutting insert with chip roller
Abstechplatte mit Spanroller
Tronçonneur avec roule-copeau



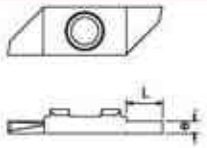
e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
1,0	5,0	854L1,0	✓	
1,5	7,5	854L1,5	✓	✓
2,0	10,0	854L2,0	✓	✓
2,5	10,0	854L2,5	✓	✓

Back turning
Drehen hinten
Tournage arrière

L : Left machining
L : Linke Bearbeitung
L : Usinage à gauche

860LP

Back turning insert 0°
Drehplatte hinten 0°
Tourneur arrière 0°



e	L	Article nr. Artikel Nr. N° Article	BI40
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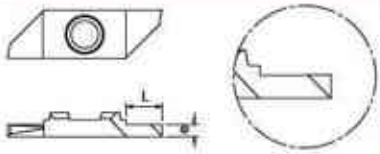
1,5	5,0	860LP1,5	✓
2,0	5,0	860LP2,0	✓
2,5	5,0	860LP2,5	✓

861L

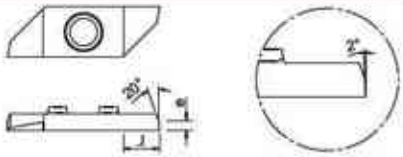
Back turning insert with «parisian cut»
Drehplatte hinten mit «Pariserschliff»
Tourneur arrière avec «coupe parisienne»



e	L	Article nr. Artikel Nr. N° Article	BI40
1,5	4,0	861L1,5	✓
2,0	6,0	861L2,0	✓
2,5	6,0	861L2,5	✓

864L

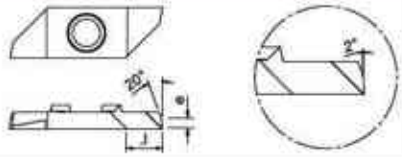
Back turning insert
Drehplatte hinten
Tourneur arrière



e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
1,5	6,0	864L	✓	✓

865L

Back turning insert with «parisian cut»
Drehplatte hinten mit «Pariserschliff»
Tourneur arrière avec «coupe parisienne»

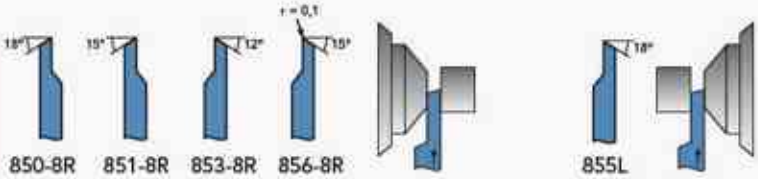


e	L	Article nr. Artikel Nr. N° Article	BI40
1,5	6,0	865L	✓

Inserts 800-8 : field of application
Wendeplatten 800-8 : Anwendungsbereiche
Plaquettes 800-8 : champ d'application

Maximum cutting-off
Maximaler Abstechdurchmesser
Tronçonnage maximum

Ø 12 mm



Cutting off, right inserts
Abstechen, Wendeplatten rechts
Tronçonnage, plaquettes à droite

Cutting off, left insert
Abstechen, Wendeplatte links
Tronçonnage, plaquette à gauche

Cutting of with 8x8 mm tool holders !

Abstechen mit Werkzeughalter 8x8 mm !

Tronçonnage avec des porte-outils 8x8 mm !

Ideal for cutting on :
Ideal zum Abstechen auf :
Idéal pour tronçonnage sur :

- Tornos Deco 7/10
- Tornos Micro 7
- Citizen Cincom R04
- Citizen Cincom R07
- Star SW-7
- Star SR-10J

For cutting on cam controlled machines.

Zum Abstechen auf Kurvenautomaten.

Pour tronçonnage sur machines à came.

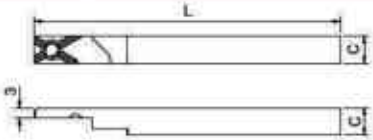
These inserts are 7,9 mm high and only fit on 8x8 mm tool holders.

Diese Wendeplatten haben eine Höhe von 7,9 mm und können auf einem 8x8 mm Halter aufgenommen werden.

Ces plaquettes ont une hauteur de 7,9 mm et se montent uniquement sur les porte-outils de section 8x8 mm.

808R	Right tool holder Werkzeughalter rechts Porte-outil à droite	Section C Querschnitt C Section C	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
		8 x 8	124	808R
		Use with inserts 841R, 850-8 and 851-8R *Verwendung mit Wendeplatten 841R, 850-8 und 851-8R* *Utilisation avec les plaquettes 841R, 850-8 et 851-8R*		

808L	Left tool holder Werkzeughalter links Porte-outil à gauche	Section C Querschnitt C Section C	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
		8 x 8	124	808L
		Use with inserts 841L, 855L and 853-8R *Verwendung mit Wendeplatten 841L, 855L und 853-8R* *Utilisation avec les plaquettes 841L, 855L et 853-8R*		

808L3	Left tool holder Werkzeughalter links Porte-outil à gauche	Section C Querschnitt C Section C	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
		8 x 8	90	808L3
		Use with inserts 850-8R *Verwendung mit Wendeplatten 850-8R* *Utilisation avec les plaquettes 850-8R*		

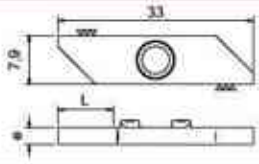
100-4c	Screw for 8x8 mm tool holder Schraube für 8x8 mm Werkzeughalter Vis pour porte-outil 8x8 mm	Article nr. Artikel Nr. N° Article
	M4,5 x 7	100-4c

Blank
Rohling
Ebauche

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

841R

Blank insert
Rohling
Plaquette ébauche



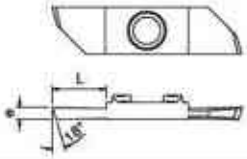
e	L	Article nr. Artikel Nr. N° Article	K20	BI90
2,2	9,5	841R2,2	✓	✓
2,8	—	841R2,8	✓	✓

Guide bush cut off Ø 12 mm
Abstechen an der Führungsbüchse Ø 12 mm
Tronçonnage côté canon Ø 12 mm

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

850-8R

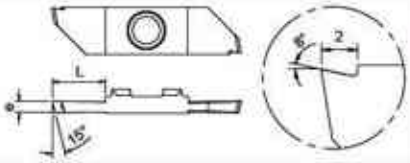
Cutting insert 18°
Abstechplatte 18°
Tronçonneur 18°



e	L	Article nr. Artikel Nr. N° Article	BI90
1,0	5,0	850-8R1,0	✓
1,2	6,0	850-8R1,2	✓
1,5	7,0	850-8R1,5	✓
2,0	8,0	850-8R2,0	✓

851-8R

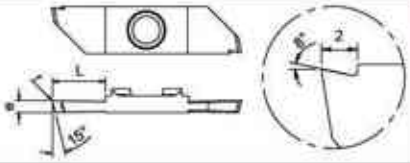
Cutting insert 15° with chip breaker
Abstechplatte 15° mit Spanbrecher
Tronçonneur 15° avec brise-copeau



e	L	Article nr. Artikel Nr. N° Article	BI90
1,2	5,0	851-8R1,2	✓
1,5	7,0	851-8R1,5	✓
2,0	7,0	851-8R2,0	✓

851-8R - r

Cutting insert 15° with chip breaker and radius
Abstechplatte 15° mit Spanbrecher und Radius
Tronçonneur 15° avec brise-copeau et rayon



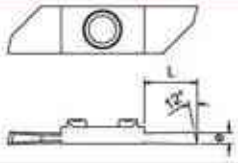
e	L	r	Article nr. Artikel Nr. N° Article	BI90
1,2	6,0	0,1	851-8R1,2	✓
1,5	7,0	0,1	851-8R1,5	✓

Sub spindle cut off Ø 12 mm
Abstechen an der Abgreifzange Ø 12 mm
Tronçonnage côté prise de pièce Ø 12 mm

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

853-8R

Opposite cutting insert
Umgekehrte Abstechplatte
Tronçonneur inversé

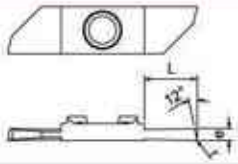


e	L	Article nr. Artikel Nr. N° Article	BI90
1,2	6,0	853-8R1,2	✓
1,5	7,0	853-8R1,5	✓
2,0	8,0	853-8R2,0	✓

Use with 808L tool holders
Verwendung mit 808L Werkzeughalter
Utilisation avec les porte-outils 808L

853-8R - r

Opposite cutting insert with radius
Umgekehrte Abstechplatte mit Radius
Tronçonneur inversé avec rayon

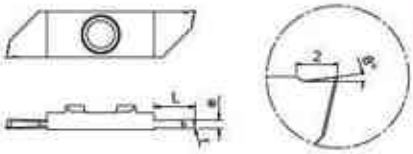


e	L	r	Article nr. Artikel Nr. N° Article	BI90
1,5	7,0	0,1	853-8R1,5 - r 0,1 -	✓
1,5	7,0	0,2	853-8R1,5 - r 0,2 -	✓
2,0	8,0	0,1	853-8R2,0 - r 0,1 -	✓

Use with 808L tool holders
Verwendung mit 808L Werkzeughalter
Utilisation avec les porte-outils 808L

856-8R

Opposite cutting insert with chip breaker and radius
Umgekehrte Abstechplatte mit Spanbrecher und Radius
Tronçonneur inversé avec brise-copeau et rayon



e	L	r	Article nr. Artikel Nr. N° Article	BI90
1,0	5,0	0,1	856-8R1,0 - r 0,1 -	✓
1,2	5,0	0,1	856-8R1,2 - r 0,1 -	✓
1,5	7,0	0,1	856-8R1,5 - r 0,1 -	✓
2,0	7,0	0,1	856-8R2,0 - r 0,1 -	✓
2,5	7,0	0,1	856-8R2,5 - r 0,1 -	✓

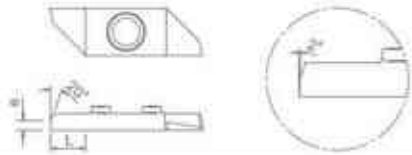
Use with 808L tool holders
Verwendung mit 808L Werkzeughalter
Utilisation avec les porte-outils 808L

Front turning
Drehen vor dem Bund
Tournage avant

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

864-8R

Front turning insert
Drehplatte vorne
Tourneur avant



e	L	Article nr. Artikel Nr. N° Article	BI90
1,5	6,0	864-8R	✓

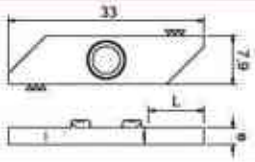
Use with 808L tool holders
Verwendung mit 808L Werkzeughalter
Utilisation avec les porte-outils 808L

Blank
Rohling
Ebauche

L: Left machining
L: Linke Bearbeitung
L: Usinage à gauche

841L

Blank insert
Rohling
Plaquette ébauche



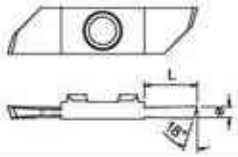
e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
1,7	5,0	841L1,7	✓	✓
2,2	9,5	841L2,2	✓	✓
2,8	—	841L2,8	✓	✓

Guide bush cut off Ø 12 mm
Abstechen an der Führungsbüchse Ø 12 mm
Tronçonnage côté canon Ø 12 mm

L: Left machining
L: Linke Bearbeitung
L: Usinage à gauche

855L

Cutting insert 18°
Abstechplatte 18°
Tronçonneur 18°



e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
1,0	6,0	855L1,0	✓	
1,2	6,0	855L1,2	✓	✓
1,5	7,5	855L1,5	✓	✓
1,8	7,5	855L1,8	✓	✓
2,0	9,0	855L2,0	✓	✓

800 line+

Cut off and back turning inserts

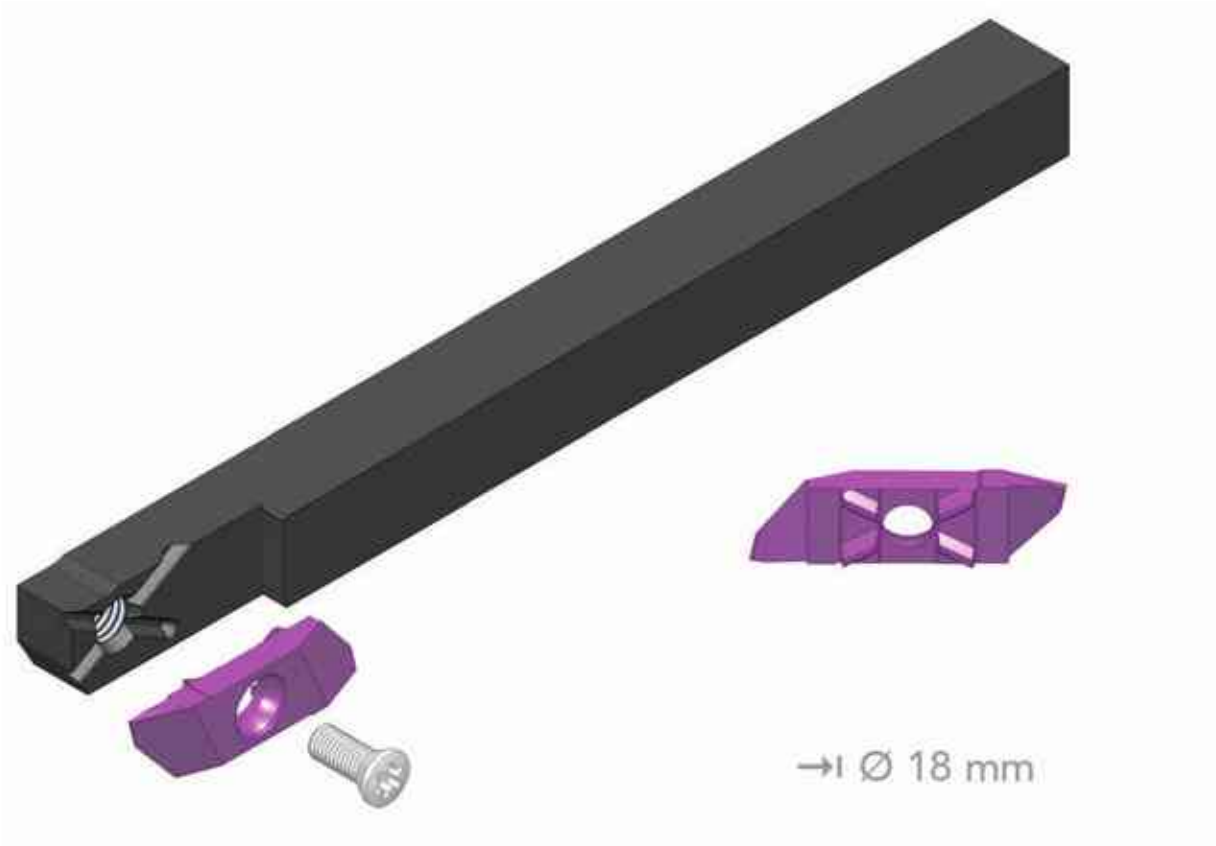
High performance geometries

Wendeplatten zum Abstechen und Drehen hinter dem Bund

Hochleistungsgeometrien

Plaquettes de tronçonnage et de tournage arrière

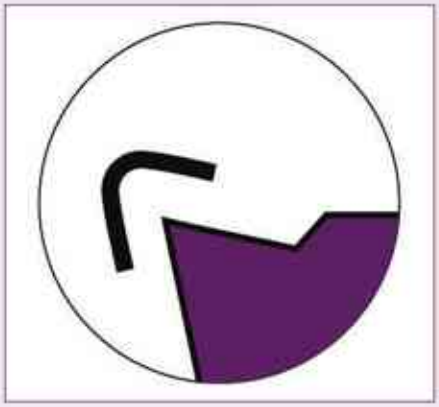
Géométries à haute performance d'usinage



Presentation of 800 line+
Vorstellung der 800 line+
Présentation de la 800 line+

Advantages of 800 line

- Excellent value for money !
- Treated cutting edges and high performance geometries :
  - Extreme feeds and higher cut depths.
  - Improved chip control.
  - Increased tool lifetime.



Vorteile der 800 line

- Sehr gutes Preis-Leistungsverhältnis !
- Schneidkantenpräparation und Hochleistungsgeometrien :
  - Hoher Vorschub und größere Spantiefen.
  - Sehr gute Spankontrolle.
  - Längere Standzeit.

Avantages de la ligne 800 line

- Excellent rapport qualité-prix !
- Traitement d'arêtes et géométries à haute performance d'usinage :
  - Avances extrêmes et grandes profondeurs de passe.
  - Excellente maîtrise du copeau.
  - Durée de vie de l'outil augmentée.

Coating of inserts
Beschichtung der Wendeplatten
Revêtement des plaquettes

✓ = Available
✓ = Verfügbar
✓ = Disponible

Designation Bezeichnung Désignation	Description Beschreibung Description
BI90	**AlTiN-based** • Universal coating. • Good oxidation resistance. • High heat resistance. • Suitable for steel and stainless steel. **AlTiN-Basis** • Universalbeschichtung. • Gute Oxidationsbeständigkeit. • Hohe Hitzebeständigkeit. • Ideal für Stahl und Edelstahl. **BaseAlTiN** • Revêtement universel. • Bonne résistance à l'oxydation. • Haute résistance à la chaleur. • Adapté à l'acier et à l'acier inox.
BI100	**AlCrN-based** • Very high heat resistance. • High wear resistance. • Ideal for high speed machining of stainless steel. **AlCrN-Basis** • Sehr hohe Hitzebeständigkeit. • Hohe Verschleissfestigkeit. • Ideal für das Bearbeiten von Edelstahl mit hoher Schnittgeschwindigkeit. **Base AlCrN** • Très haute résistance à la chaleur. • Haute résistance à l'usure. • Idéal pour l'usinage à haute vitesse de coupe de l'acier inox.

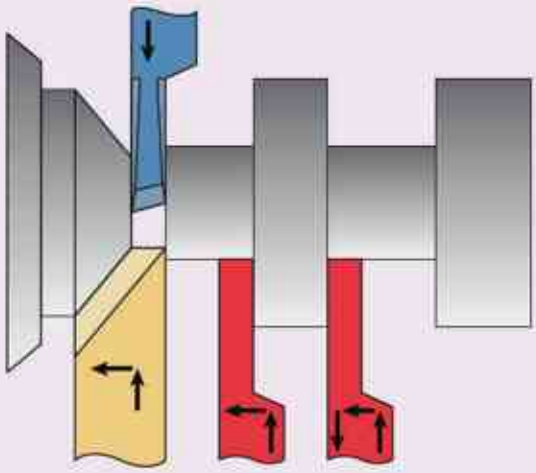
Treatment of the cutting edges
Schneidkanten Verrundung
Traitement des arêtes de coupe

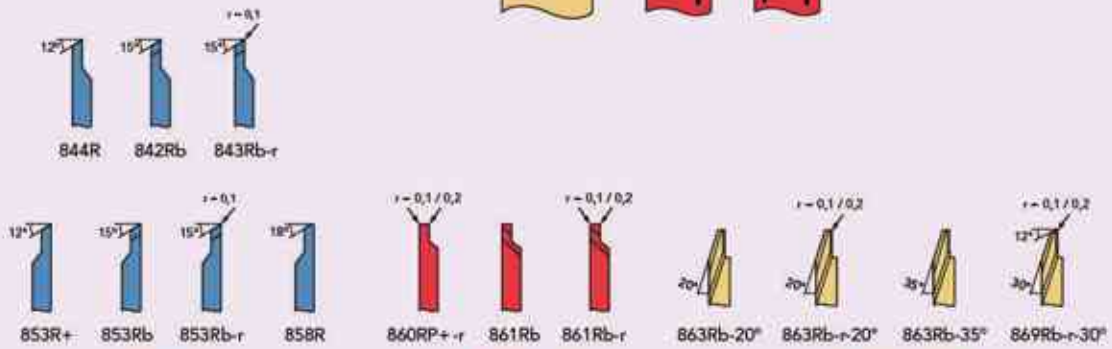
= Treated cutting edges
= Behandelte Schneidkanten
= Arêtes traîtées

Insert 800line+ : field of application
Wendeplatten 800line+ : Anwendungsbereiche
Plaquettes 800line+ : champ d'application

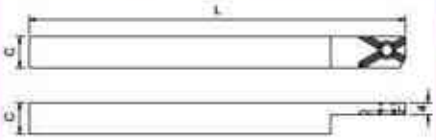
Maximum cutting-off
Maximaler Abstechdurchmesser
Tronçonnage maximum
Ø 18 mm

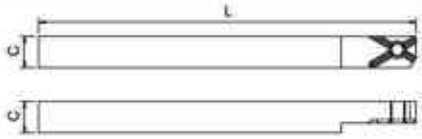
Maximum turning
Maximale Spantiefe
Tournage maximum
ap 3,5 mm





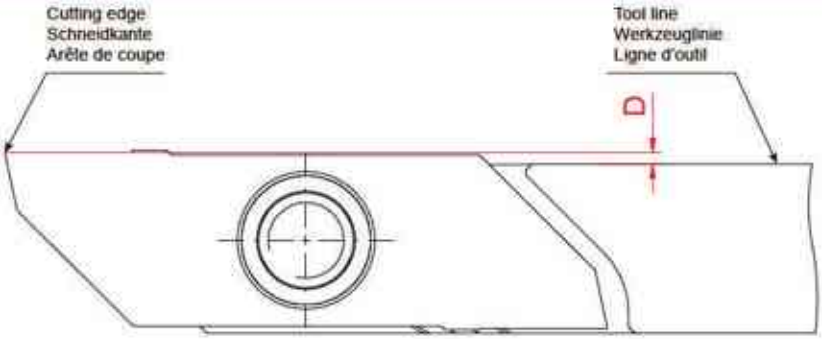
8xxR	Right tool holder Werkzeughalter rechts Porte-outil à droite	Section C Querschnitt C Section C	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
		10 x 10	124	810R
		12 x 12	124	812R
		16 x 16	124	816R
		8 x 8	124	808R+
		Please see the note below *Bitte lesen Sie den Hinweis unten* *Veuillez voir la note ci-dessous*		

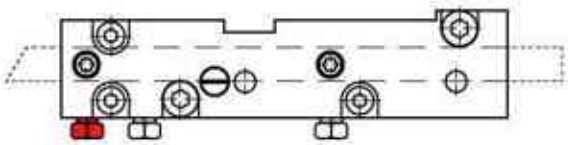
8xxR4	Right «Pick-up» tool holder «Pick-up» Werkzeughalter rechts Porte-outil «Pick-up» à droite	Section C Querschnitt C Section C	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
		10 x 10	124	810R4
		12 x 12	124	812R4
		16 x 16	124	816R4
		Use with 853R+, 853Rb, 853Rb - r and 858R inserts *Verwendung mit 853R+, 853Rb, 853Rb - r und 858R Wendepl.* *Utilisation avec les plaqu. 853R+, 853Rb, 853Rb - r et 858R*		

8xxL	Left tool holder Werkzeughalter links Porte-outil à gauche	Section C Querschnitt C Section C	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
		10 x 10	124	810L
		12 x 12	124	812L
		16 x 16	124	816L
		8 x 8	124	808L+
		Please see the note below *Bitte lesen Sie den Hinweis unten* *Veuillez voir la note ci-dessous*		

Note on the tool holders 808R+ and 808L+
Anmerkung an die Werkzeughalter 808R+ und 808L+
Remarque concernant les porte-outils 808R+ et 808L+

Tool holder section 8 x 8 mm
Werkzeughalter Querschnitt 8 x 8 mm
Porte-outil de section 8 x 8 mm





If the tool holder 808R+ / 808L+ is fitted on a long Tornos tool holder nr 305007, the screw which is in front must not be tightened.

Wenn der Werkzeughalter 808R+ / 808L+ auf dem langen Werkzeughalter Tornos Nr 305007 montiert wird, muss die Schraube vorne entfernt sein.

Si le porte-outil 808R+ / 808L+ est monté sur le porte-outil long Tornos no 305007, la vis avant de ce dernier ne doit pas être serrée.

	Tool holders with internal coolant Werkzeughalter mit Innenkühlung Porte-outils avec arrosage intégré
	See the «Tool holders with internal coolant» documentation for further information. *Siehe Dokumentation «Werkzeughalter mit Innenkühlung» für weitere Informationen.* *Voir la documentation «Porte-outils avec arrosage intégré» pour plus d'informations.*

100-1	Key Schlüssel Clé	Article nr. Artikel Nr. N° Article
	Torx 15	100-1

100-4	Screw for standard tool holder Schraube für Standard-Werkzeughalter Vis pour porte-outil standard	Article nr. Artikel Nr. N° Article
	M4,5 x 10,5	100-4

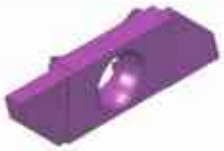
100-4c	Screw for 8x8 mm «Pick-up» tool holder Schraube für 8x8 mm «Pick-up» Werkzeughalter Vis pour porte-outil «Pick-up» 8x8 mm	Article nr. Artikel Nr. N° Article
	M4,5 x 7	100-4c

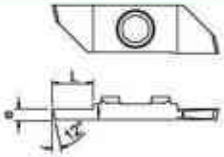
Guide bush cut off Ø 18 mm
Abstechen an der Führungsbüchse Ø 18 mm
Tronçonnage côté canon Ø 18 mm

R : Right machining
R : Bearbeitung rechts
R : Usinage à droite

844R

Standard resharpable cut off insert 12°
Normale, nachschleifbare Abstechplatte 12°
Tronçonneur traditionnel réaffûtable 12°





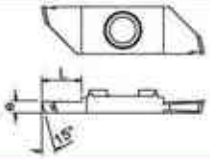
e	L	Article nr. Artikel Nr. N° Article	BI90	BI100
0,8	5	844R0,8	✓	
1,0	5	844R1,0	✓	✓
1,2	6	844R1,2	✓	
1,5	7,5	844R1,5	✓	✓
2,0	9	844R2,0	✓	
2,5	9	844R2,5	✓	

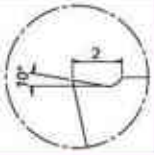
Guide bush cut off Ø 14 mm
Abstechen an der Führungsbüchse Ø 14 mm
Tronçonnage côté canon Ø 14 mm

R : Right machining
R : Bearbeitung rechts
R : Usinage à droite

842Rb

Short cut off insert 15° with chip breaker
Kurze Abstechplatte 15° mit Spanbrecher
Tronçonneur court 15° avec brise-copeau

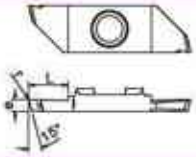


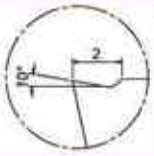


e	L	Article nr. Artikel Nr. N° Article	BI90	BI100
1,0	5	842Rb1,0	✓	✓
1,5	7	842Rb1,5	✓	
2,0	7	842Rb2,0	✓	

843Rb - r

Short cut off insert 15° with chip breaker and radius
Kurze Abstechplatte 15° mit Spanbrecher und Radius
Tronçonneur court 15° avec brise-copeau et rayon





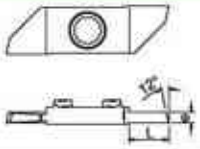
e	L	r	Article nr. Artikel Nr. N° Article	BI90
1,0	5	0,1	843Rb1,0 - r 0,1 -	✓
1,2	7	0,1	843Rb1,2 - r 0,1 -	✓
1,5	7	0,1	843Rb1,5 - r 0,1 -	✓
2,0	7	0,1	843Rb2,0 - r 0,1 -	✓
2,5	7	0,1	843Rb2,5 - r 0,1 -	✓

Sub spindle cut off Ø 18 mm
Abstechen an der Abgreifzange Ø 18 mm
Tronçonnage côte prise de pièce Ø 18 mm

R : Right machining
R : Bearbeitung rechts
R : Usinage à droite

853R+

Standard resharpable opposite cut off insert 12°
Normale, nachschleifbare umgekehrte Abstechpl. 12°
Tronçonneur inversé traditionnel réaffûtable 12°



e	L	Article nr. Artikel Nr. N° Article	BI90
1,0	5	853R+1,0	✓
1,2	6	853R+1,2	✓
1,5	7,5	853R+1,5	✓
2,0	9	853R+2,0	✓

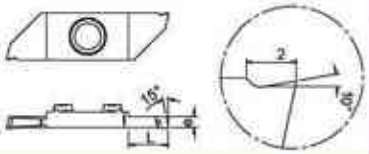
Use with 8xxL tool holders
Verwendung mit 8xxL Werkzeughalter
Utilisation avec les porte-outils 8xxL

Sub spindle cut off Ø 14 mm
Abstechen an der Abgreifzange Ø 14 mm
Tronçonnage côte prise de pièce Ø 14 mm

R : Right machining
R : Bearbeitung rechts
R : Usinage à droite

853Rb

Short opposite cut off insert 15° with chip breaker
Kurze umgekehrte Abstechpl. 15° mit Spanbrecher
Tronçonneur inversé court 15° avec brise-copeau

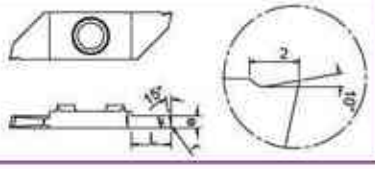


e	L	Article nr. Artikel Nr. N° Article	BI90
0,8	5	853Rb0,8	✓
1,0	5	853Rb1,0	✓
1,5	7	853Rb1,5	✓
2,0	7	853Rb2,0	✓

Use with 8xxL tool holders
Verwendung mit 8xxL Werkzeughalter
Utilisation avec les porte-outils 8xxL

853Rb - r

Short opposite cut off insert 15° w/ chip breaker and radius
Kurze umgekehrte Abstechpl. 15° mit Spanbr. und Radius
Tronç. inversé court 15° avec brise-copeau et rayon

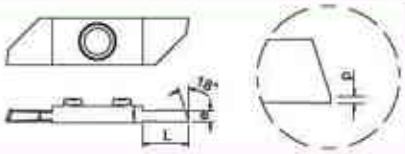


e	L	r	Article nr. Artikel Nr. N° Article	BI90
1,5	7	0,1	853Rb1,5 - r 0,1 -	✓
2,0	7	0,1	853Rb2,0 - r 0,1 -	✓
2,5	7	0,1	853Rb2,5 - r 0,1 -	✓

Use with 8xxL tool holders
Verwendung mit 8xxL Werkzeughalter
Utilisation avec les porte-outils 8xxL

858R

Opposite cut off insert 18°
Umgekehrte Abstechplatte 18°
Tronçonneur inversé 18°



e	L	p	Article nr. Artikel Nr. N° Article	BI90
1,0	6	0,10	858R1,0	✓
1,5	7	0,15	858R1,5	✓
2,0	8	0,20	858R2,0	✓

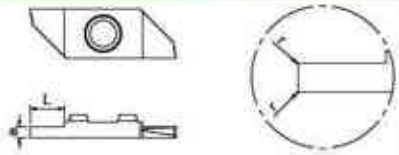
Use with 8xxL tool holders
Verwendung mit 8xxL Werkzeughalter
Utilisation avec les porte-outils 8xxL

Back turning
Drehen hinter dem Bund
Tournage arrière

R : Right machining
R : Bearbeitung rechts
R : Usinage à droite

860RP+ - r

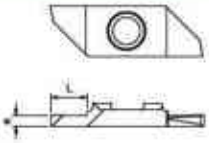
Back turning insert 0° with radius
Drehplatte hinten 0° mit Radius
Tourneur arrière 0° avec rayons



e	L	r	Article nr. Artikel Nr. N° Article	BI90
1,0	4	0,1	860RP+1,0 - r 0,1 -	✓
1,5	5	0,1	860RP+1,5 - r 0,1 -	✓
1,5	5	0,2	860RP+1,5 - r 0,2 -	✓
2,0	5	0,1	860RP+2,0 - r 0,1 -	✓
2,0	5	0,2	860RP+2,0 - r 0,2 -	✓

861Rb

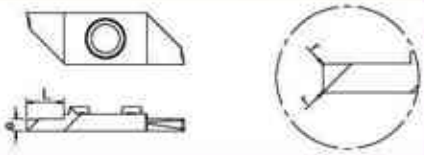
Back turning insert with «parisian cut»
Drehplatte hinten mit «Pariserschliff»
Tourneur arrière avec «coupe parisienne»



e	L	Article nr. Artikel Nr. N° Article	BI90
1,0	3	861Rb1,0	✓
1,2	3	861Rb1,2	✓
1,5	3	861Rb1,5	✓
2,0	5	861Rb2,0	✓
2,5	5	861Rb2,5	✓

861Rb - r

Back turning insert with «parisian cut» and radius
Drehplatte hinten mit «Pariserschliff» und Radius
Tourneur arrière avec «coupe parisienne» et rayons



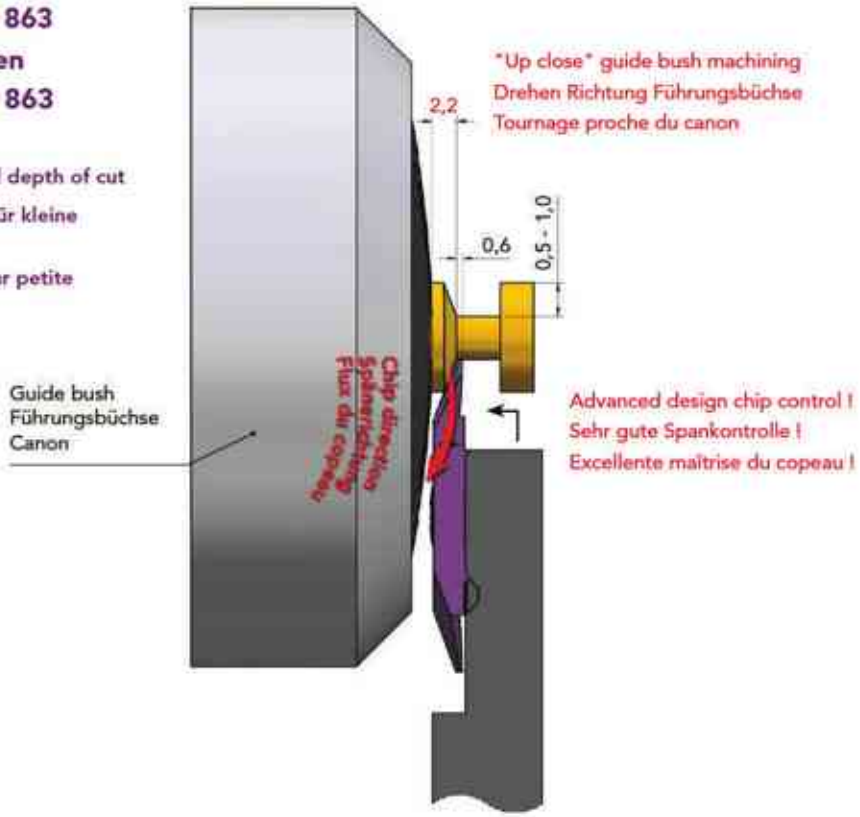
e	L	r	Article nr. Artikel Nr. N° Article	BI90
1,5	3	0,1	861Rb1,5 - r 0,1 -	✓
1,5	3	0,2	861Rb1,5 - r 0,2 -	✓
2,0	5	0,1	861Rb2,0 - r 0,1 -	✓
2,0	5	0,2	861Rb2,0 - r 0,2 -	✓
2,5	5	0,1	861Rb2,5 - r 0,1 -	✓
2,5	5	0,2	861Rb2,5 - r 0,2 -	✓

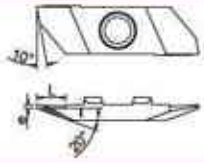
Advantages of geometries 863
Vorteile der 863 Geometrien
Avantages des géométries 863

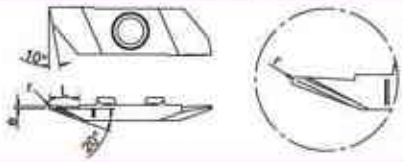
Back turning for finishing or for small depth of cut

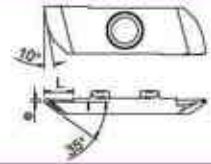
Drehen hinten zum Schlichten oder für kleine Schnitttiefen

Tournage arrière pour finition ou pour petite profondeur de coupe



863Rb - 20°	Back turning insert 20° with chip roller Drehplatte hinten 20° mit Spanroller Tourneur arrière 20° avec roule-copeau	ø	L	Article nr. Artikel Nr. N° Article	BI90
		0,6	5	863Rb0,6 - 20° -	✓

863Rb - r - 20°	Back turning insert 20° with chip roller and radius Drehplatte hinten 20° mit Spanroller und Radius Tourneur arrière 20° avec roule-copeau et rayon	ø	L	r	Article nr. Artikel Nr. N° Article	BI90	BI100
		0,6	5	0,05	863Rb0,6 - r 0,05 - 20° -	✓	
		0,6	5	0,1	863Rb0,6 - r 0,1 - 20° -	✓	✓
		0,6	5	0,2	863Rb0,6 - r 0,2 - 20° -	✓	

863Rb - 35°	Back turning insert 35° with chip roller Drehplatte hinten 35° mit Spanroller Tourneur arrière 35° avec roule-copeau	ø	L	Article nr. Artikel Nr. N° Article	BI90
		0,6	5	863Rb0,6 - 35° -	✓

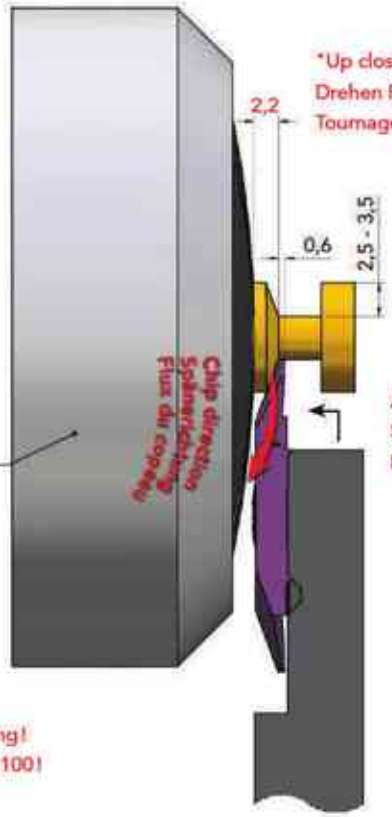
Advantages of geometry 869
Vorteile der 869 Geometrie
Avantages de la géométrie 869

Back turning for rough machining

Drehen hinten zum Schruppen

Tournage arrière pour ébauche

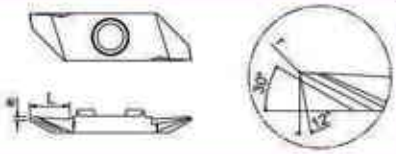
Rigid geometrie !
Robuste Geometrie !
Géométrie robuste !



"Up close" guide bush machining
Drehen Richtung Führungsbüchse
Tournage proche du canon

Advanced design chip control !
Sehr gute Spankontrolle !
Excellente maîtrise du copeau !

Very long tool life thanks to the BI100 coating!
Sehr lange Werkzeugstandzeit dank der BI100 Beschichtung!
Très longue durée de vie de l'outil grâce au revêtement BI100!

869Rb - r - 30°	Back turning insert 30° with chip roller and radius Drehplatte hinten 30° mit Spanroller und Radius Tourneur arrière 30° avec roule-copeau et rayon	e	L	r	Article nr. Artikel Nr. N° Article	BI90	BI100
		0,6	3	0,1	869Rb0,6 - r 0,1 - 30° -		✓
		0,6	3	0,2	869Rb0,6 - r 0,2 - 30° -	✓	✓

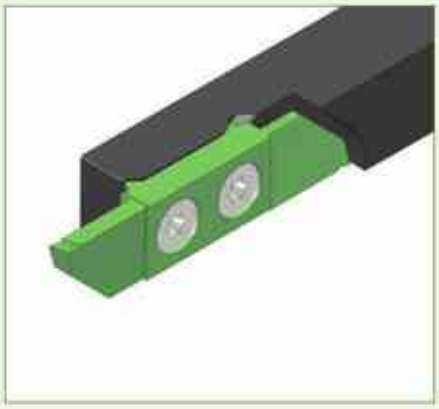
oxoline

Very high rigidity inserts 1000

Presentation of OXOline
Vorstellung der OXOline
Présentation d'OXOline

Advantages of OXOline

- High rigidity inserts.
- Increase of stability thanks 2 screws fixing system.
- Repetitiveness of the cutting edge ± 0,01 mm.
- Positioning in all axes.
- The screw is free of all radial stress.
- 2 cutting edges available.
- Large choice of geometries available.



Vorteile der OXOline

- Sehr stabile Wendeplatten.
- Zunahme der Stabilität dank zweier Schrauben.
- Wiederholgenauigkeit der Schneidkante ± 0,01 mm.
- Positionierung in allen Achsen.
- Keine radialen Spannungen.
- 2 verfügbare Schneidkanten.
- Viele verschiedene Geometrien verfügbar.

Avantages de la ligne OXOline

- Plaquettes haute rigidité.
- Accroissement de la stabilité grâce aux 2 vis.
- Répétitivité de l'arête de coupe ± 0,01 mm.
- Positionnement dans tous les axes.
- La vis est libre de toute tension radiale.
- 2 arêtes de coupe.
- Grand choix de géométries disponible.

Coating of inserts
Beschichtung der Wendeplatten
Revêtement des plaquettes

✓ = Available
✓ = Verfügbar
✓ = Disponible

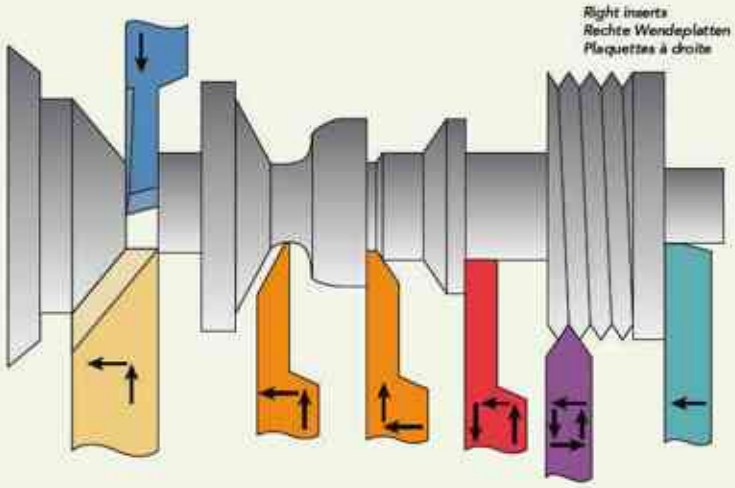
Designation Bezeichnung Désignation	Description Beschreibung Description
K20	**Without coating | K20 carbide** **Ohne Beschichtung | K20 Hartmetall** **Sans revêtement | Carbure K20**
BI40	**AlTi(C)N-based** • Universal coating. • High hardness. • Very smooth surface finish. • Suitable for steel and stainless steel. **AlTi(C)N-Basis** • Universalbeschichtung. • Hohe Schichthärte. • Sehr glatte Oberfläche. • Geeignet für Stahl und Edelstahl. **Base AlTi(C)N** • Revêtement universel. • Dureté élevée. • Bon glissement du copeau. • Adapté à l'acier et à l'acier inox.
BI90	**AlTiN-based** • Universal coating. • Good oxidation resistance. • High heat resistance. • Suitable for steel and stainless steel. **AlTiN-Basis** • Universalbeschichtung. • Gute Oxidationsbeständigkeit. • Hohe Hitzebeständigkeit. • Ideal für Stahl und Edelstahl. **BaseAlTiN** • Revêtement universel. • Bonne résistance à l'oxydation. • Haute résistance à la chaleur. • Adapté à l'acier et à l'acier inox.

Designation Bezeichnung Désignation	Description Beschreibung Description
BI110	**AlTiCrN-based** • Very smooth surface finish. • High heat resistance. • High wear resistance. • Especially suitable for machining pure copper, CuBe, CoCr and aluminium. **AlTiCrN-Basis** • Sehr glatte Oberflächengüte. • Hohe Hitzebeständigkeit. • Hohe Verschleissfestigkeit. • Besonders geeignet für die Bearbeitung von reinem Kupfer, CuBe, CoCr und Aluminium. **Base AlTiCrN** • Très bon glissement du copeau. • Haute résistance à la chaleur. • Haute résistance à l'usure. • Particulièrement adapté à l'usinage du cuivre pur, du CuBe, du CoCr et de l'aluminium.
TIN	**TiN** • Universal coating. **TiN** • Universalbeschichtung. **TiN** • Revêtement universel.

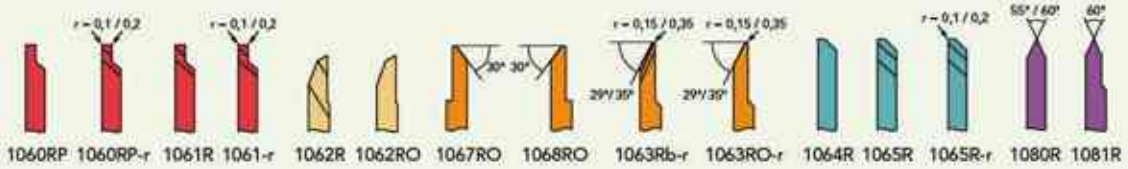
Field of application of OXOline 1000
Anwendungsbereiche der OXOline 1000
Champ d'application d'OXOline 1000

Maximum cutting-off
Maximaler Abstechdurchmesser
Tronçonnage maximum
Ø 20 mm

Maximum turning
Maximale Spantiefe
Tournage maximum
ap 6 mm



Cutting off
Abstechen
Tronçonnage



Plunging-Turning
Einstechen-Drehen
Fonçage-Tournage

Plunging-Turning
Einstechen-Drehen
Fonçage-Tournage

Turning-Plunging
Drehen-Einstechen
Tournage-Fonçage

Turning
Drehen
Tournage

Threading
Gewindestrehlen
Filetage

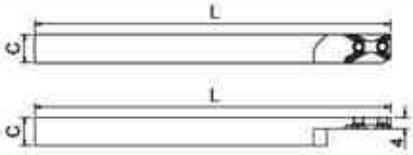
10xxR

Right tool holder
Werkzeughalter rechts
Porte-outil à droite

Section C Querschnitt C Section C	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
10 x 10	124	1010R
12 x 12	124	1012R
14 x 14	124	1014R
16 x 16	124	1016R
20 x 20	124	1020R
25 x 25	100	1025R

10xxR4

Right «Pick-up» tool holder
«Pick-up» Werkzeughalter rechts
Porte-outil «Pick-up» à droite

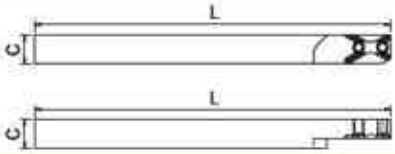


Section C Querschnitt C Section C	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
10 x 10	124	1010R4
12 x 12	124	1012R4
16 x 16	124	1016R4

Use with 1053R, 1053RP, 1053RX, 1056R inserts
Verwendung mit 1053R, 1053RP, 1053RX, 1056R Wendeplatten
Utilisation avec les plaquettes 1053R, 1053RP, 1053RX, 1056R

10xxL

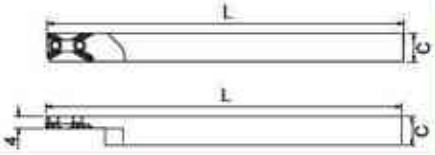
Left tool holder
Werkzeughalter links
Porte-outil à gauche



Section C Querschnitt C Section C	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
10 x 10	124	1010L
12 x 12	124	1012L
14 x 14	124	1014L
16 x 16	124	1016L
20 x 20	124	1020L

10xxL4

Left «Pick-up» tool holder
«Pick-up» Werkzeughalter links
Porte-outil «Pick-up» à gauche



Section C Querschnitt C Section C	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
10 x 10	124	1010L4
12 x 12	124	1012L4
16 x 16	124	1016L4

Use with 1053L inserts
Verwendung mit 1053L Wendeplatten
Utilisation avec les plaquettes 1053L

Tool holders with internal coolant
Werkzeughalter mit Innenkühlung
Porte-outils avec arrosage intégré

See the «Tool holders with internal coolan» documentation for further information.
Siehe Dokumentation «Werkzeughalter mit Innenkühlung» für weitere Informationen.
Voir la documentation «Porte-outils avec arrosage intégré» pour plus d'informations.

Turning tool holders for counter-operation
Drehwerkzeughalter für Rückseitenbearbeitung
Porte-outils de tournage pour contre-opération

See the «Cylindrical turning tool holders» documentation for further information.
Siehe die «Zylindrische Drehwerkzeughalter» Dokumentation für weitere Informationen.
Voir la documentation «Porte-outils de tournage cylindriques» pour plus d'informations.

100-1	Key Schlüssel Clé	Article nr. Artikel Nr. N° Article
	Torx 15	100-1

001-8	Screw for standard tool holder Schraube für Standard-Werkzeughalter Vis pour porte-outil standard	Article nr. Artikel Nr. N° Article
	M3,5 x 9	001-8

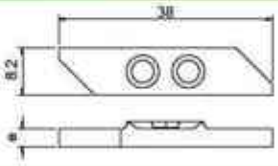
100-2c	Screw for «Pick-up» tool holder Schraube für «Pick-up» Werkzeughalter Vis pour porte-outil «Pick-up»	Article nr. Artikel Nr. N° Article
	M3,5 x 7	100-2c

Blank
Rohling
Ebauche

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

1040R

Blank insert
Rohling Wendeplatte
Plaquette ébauche



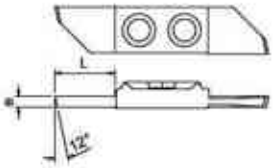
ø	Article nr. Artikel Nr. N° Article	K20	BI40	BI90
3,3	1040R3,3	✓	✓	✓

Guide bush cut off Ø 20 mm
Abstechen an der Führungsbüchse Ø 20 mm
Tronçonnage côté canon Ø 20 mm

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

1050R

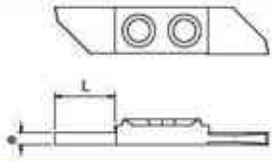
Cutting insert 12°
Abstechplatte 12°
Tronçonneur 12°



ø	L	Article nr. Artikel Nr. N° Article	BI40	BI90	BI100
1,0	5,0	1050R1,0	✓	✓	✓
1,2	6,0	1050R1,2	✓	✓	
1,5	7,5	1050R1,5	✓	✓	✓
1,8	9,0	1050R1,8	✓	✓	
2,0	10,5	1050R2,0	✓	✓	✓
2,2	10,5	1050R2,2	✓	✓	
2,5	10,5	1050R2,5	✓	✓	
3,0	10,5	1050R3,0	✓	✓	

1050RP

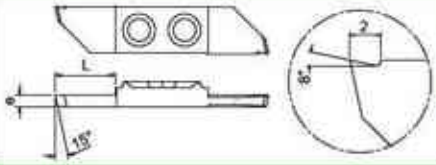
Cutting insert 0°
Abstechplatte 0°
Tronçonneur 0°



ø	L	Article nr. Artikel Nr. N° Article	BI40	BI90
1,0	5,0	1050RP1,0	✓	✓
1,5	7,5	1050RP1,5	✓	✓
2,0	10,5	1050RP2,0	✓	✓
2,5	10,5	1050RP2,5	✓	✓
3,0	10,5	1050RP3,0	✓	✓

1051R

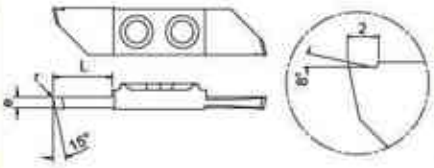
Cutting insert 15° with chip breaker
Abstechplatte 15° mit Spanbrecher
Tronçonneur 15° avec brise-copeau



ø	L	Article nr. Artikel Nr. N° Article	BI40	BI90
1,0	5,0	1051R1,0	✓	✓
1,2	6,0	1051R1,2	✓	✓
1,5	7,5	1051R1,5	✓	✓
2,0	10,5	1051R2,0	✓	✓
2,5	10,5	1051R2,5	✓	✓

1051R - r

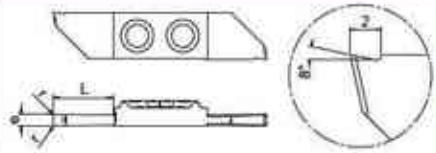
Cutting insert 15° with chip breaker and radius
Abstechplatte 15° mit Spanbrecher und Radius
Tronçonneur 15° avec brise-copeau et rayon



e	L	r	Article nr. Artikel Nr. N° Article	BI40	BI90	BI100
1,0	5,0	0,1	1051R1,0 - r 0,1 -	✓		
1,0	5,0	0,2	1051R1,0 - r 0,2 -	✓		
1,2	6,0	0,1	1051R1,2 - r 0,1 -	✓		
1,5	7,5	0,1	1051R1,5 - r 0,1 -	✓	✓	
2,0	10,5	0,1	1051R2,0 - r 0,1 -	✓		✓
2,0	10,5	0,2	1051R2,0 - r 0,2	✓		
2,5	10,5	0,2	1051R2,5 - r 0,2	✓		

1051RP - r

Cutting insert 0° with chip breaker and radius
Abstechplatte 0° mit Spanbrecher und Radius
Tronçonneur 0° avec brise-copeau et rayon

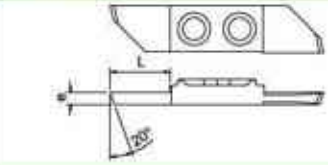


e	L	r	Article nr. Artikel Nr. N° Article	BI90
1,5	7,5	0,1	1051RP1,5 - r 0,1 -	✓
1,5	7,5	0,2	1051RP1,5 - r 0,2 -	✓
2,0	10,5	0,1	1051RP2,0 - r 0,1 -	✓
2,0	10,5	0,2	1051RP2,0 - r 0,2 -	✓

New Neu Nouveau

1052R

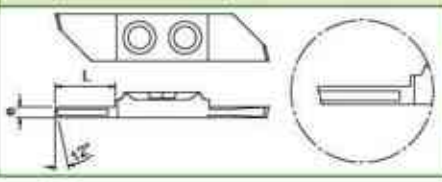
Cutting insert 20°
Abstechplatte 20°
Tronçonneur 20°



e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
1,0	5,0	1052R1,0		✓
1,2	6,0	1052R1,2	✓	✓
1,5	7,5	1052R1,5	✓	✓
2,0	10,5	1052R2,0	✓	✓
2,5	10,5	1052R2,5	✓	✓

1054R

Cutting insert with chip roller
Abstechplatte mit Spanroller
Tronçonneur avec roule-copeau



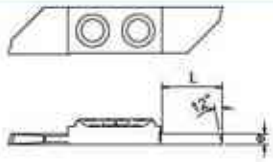
e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
1,0	5,0	1054R1,0	✓	✓
1,2	6,0	1054R1,2	✓	✓
1,5	7,5	1054R1,5	✓	✓
2,0	10,5	1054R2,0	✓	✓
2,5	10,5	1054R2,5	✓	✓

Sub spindle cut off Ø 18 mm
Abstechen an der Abgreifzange Ø 18 mm
Tronçonnage côte prise de pièce Ø 18 mm

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

1053R

Opposite cutting insert
Umgekehrte Abstechplatte
Tronçonneur inversé

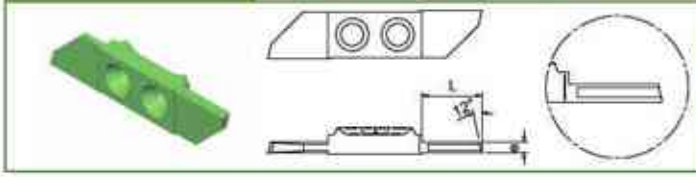


e	L	Article nr. Artikel Nr. N° Article	BI40	BI90	BI100
1,0	5,0	1053R1,0	✓		✓
1,2	6,0	1053R1,2	✓		
1,5	7,5	1053R1,5	✓	✓	✓
1,8	9,0	1053R1,8	✓		
2,0	10,5	1053R2,0	✓	✓	
2,5	10,5	1053R2,5	✓	✓	
3,0	10,5	1053R3,0	✓		

Use with 10xxL tool holders
Verwendung mit 10xxL Werkzeughalter
Utilisation avec les porte-outils 10xxL

1053RX

Opposite cutting insert with chip roller
Umgekehrte Abstechplatte mit Spanroller
Tronçonneur inversé avec roule-copeau

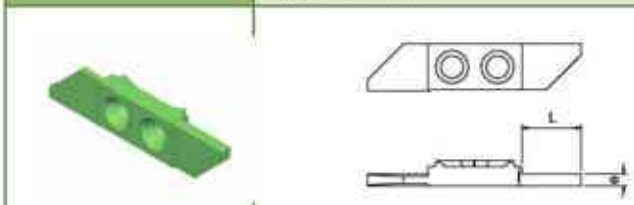


ø	L	Article nr. Artikel Nr. N° Article	BI40	BI90
1,0	5,0	1053RX1,0	✓	✓
1,2	6,0	1053RX1,2	✓	
1,5	7,5	1053RX1,5	✓	✓
2,0	10,5	1053RX2,0	✓	✓

Use with 10xxL tool holders
Verwendung mit 10xxL Werkzeughalter
Utilisation avec les porte-outils 10xxL

1053RP

Opposite cutting insert 0°
Umgekehrte Abstechplatte 0°
Tronçonneur inversé 0°

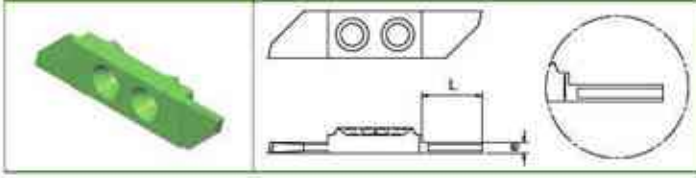


ø	L	Article nr. Artikel Nr. N° Article	BI40	BI90
1,0	5,0	1053RP1,0	✓	
1,2	6,0	1053RP1,2	✓	
1,5	7,5	1053RP1,5	✓	
2,0	10,5	1053RP2,0	✓	✓
2,5	10,5	1053RP2,5	✓	✓
3,0	10,5	1053RP3,0		✓

Use with 10xxL tool holders
Verwendung mit 10xxL Werkzeughalter
Utilisation avec les porte-outils 10xxL

1053RPX

Opposite cutting insert 0° with chip roller
Umgekehrte Abstechplatte 0° mit Spanroller
Tronçonneur inversé 0° avec roule-copeau

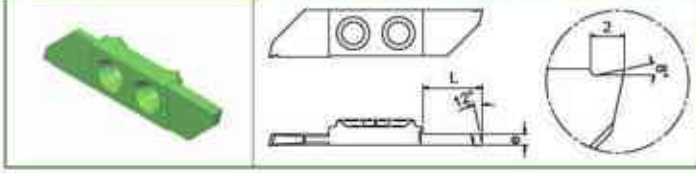


ø	L	Article nr. Artikel Nr. N° Article	BI40
1,5	7,5	1053RPX1,5	✓
2,0	10,5	1053RPX2,0	✓

Use with 10xxL tool holders
Verwendung mit 10xxL Werkzeughalter
Utilisation avec les porte-outils 10xxL

1056R

Opposite cutting insert with chip breaker
Umgekehrte Abstechplatte mit Spanbrecher
Tronçonneur inversé avec brise-copeau

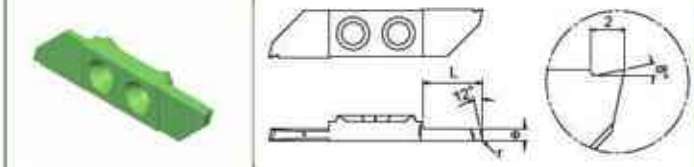


ø	L	Article nr. Artikel Nr. N° Article	BI40	BI90
1,5	7,5	1056R1,5	✓	✓
2,0	10,5	1056R2,0	✓	✓
2,5	10,5	1056R2,5	✓	✓

Use with 10xxL tool holders
Verwendung mit 10xxL Werkzeughalter
Utilisation avec les porte-outils 10xxL

1056R - r

Opposite cutting insert with chip breaker and radius
Umgekehrte Abstechplatte mit Spanbrecher und Radius
Tronçonneur inversé avec brise-copeau et rayon

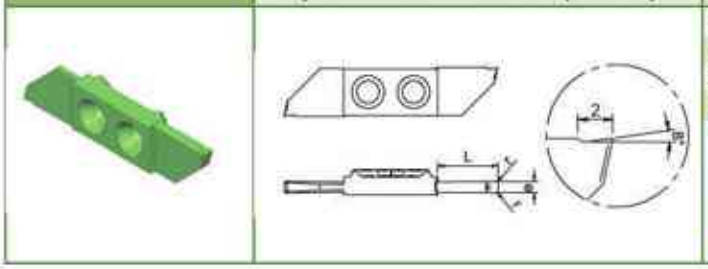


ø	L	r	Article nr. Artikel Nr. N° Article	BI40	BI90	BI100
1,0	5,0	0,1	1056R1,0 - r 0,1 -	✓		
1,0	5,0	0,2	1056R1,0 - r 0,2 -	✓		
1,5	7,5	0,1	1056R1,5 - r 0,1 -	✓	✓	✓
1,5	7,5	0,2	1056R1,5 - r 0,2 -	✓		
2,0	10,5	0,1	1056R2,0 - r 0,1 -	✓	✓	
2,0	10,5	0,2	1056R2,0 - r 0,2 -	✓		
2,5	10,5	0,2	1056R2,5 - r 0,2 -	✓		

Use with 10xxL tool holders
Verwendung mit 10xxL Werkzeughalter
Utilisation avec les porte-outils 10xxL

1056RP - r

Opposite cutting insert 0° with chip breaker and radius
Umgekehrte Abstechpl. 0° mit Spanbrecher und Radius
Tronçonneur inversé 0° avec brise-copeau et rayon



e	L	r	Article nr. Artikel Nr. N° Article	BI90
1,5	7,5	0,1	1056RP1,5 - r 0,1 -	✓
1,5	7,5	0,2	1056RP1,5 - r 0,2 -	✓
2,0	10,5	0,1	1056RP2,0 - r 0,1 -	✓
2,0	10,5	0,2	1056RP2,0 - r 0,2 -	✓

New
Neu
Nouveau

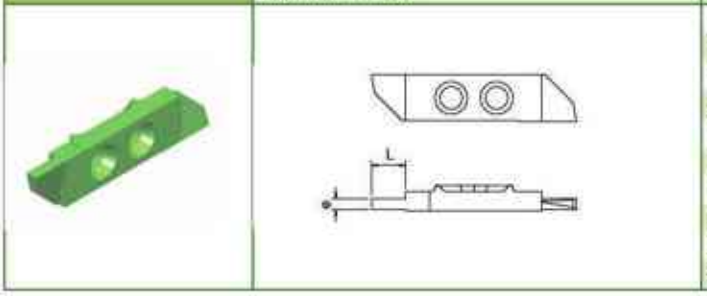
Use with 10xxL tool holders
Verwendung mit 10xxL Werkzeughalter
Utilisation avec les porte-outils 10xxL

Back turning
Drehen hinter dem Bund
Tournage arrière

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

1060RP

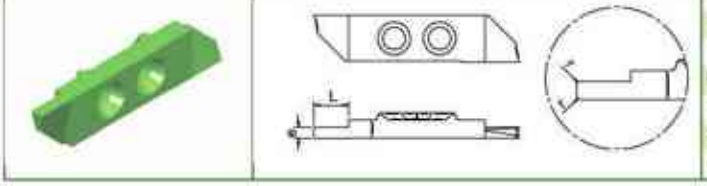
Back turning insert 0°
Drehplatte hinten 0°
Tourneur arrière 0°



e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
0,5	2,0	1060RP0,5		✓
0,6	2,0	1060RP0,6		✓
0,8	2,0	1060RP0,8	✓	✓
1,0	3,0	1060RP1,0	✓	✓
1,2	3,0	1060RP1,2	✓	✓
1,5	4,0	1060RP1,5	✓	✓
1,8	4,0	1060RP1,8		✓
2,0	5,0	1060RP2,0	✓	✓
2,5	6,0	1060RP2,5	✓	✓
3,0	6,0	1060RP3,0	✓	✓

1060RP - r

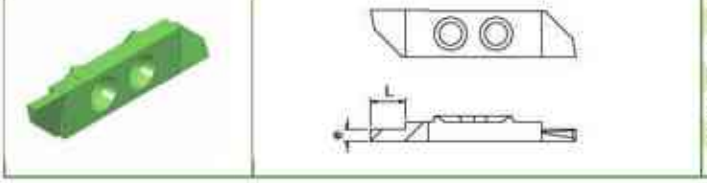
Back turning insert 0° with radius
Drehplatte hinten 0° mit Radius
Tourneur arrière 0° avec rayon



e	L	r	Article nr. Artikel Nr. N° Article	BI40	BI90
1,0	3,0	0,1	1060RP1,0 - r 0,1 -	✓	
1,0	3,0	0,2	1060RP1,0 - r 0,2 -	✓	
1,5	4,0	0,1	1060RP1,5 - r 0,1 -	✓	✓
1,5	4,0	0,2	1060RP1,5 - r 0,2 -	✓	✓
2,0	5,0	0,1	1060RP2,0 - r 0,1 -	✓	
2,0	5,0	0,2	1060RP2,0 - r 0,2 -	✓	
2,5	6,0	0,1	1060RP2,5 - r 0,1 -	✓	

1061R

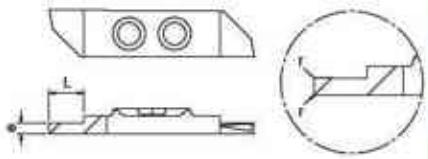
Back turning insert with «parisian cut»
Drehplatte hinten mit «Pariserschliff»
Tourneur arrière avec «coupe parisienne»



e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
0,8	2,0	1061R0,8		✓
1,0	3,0	1061R1,0	✓	✓
1,2	3,0	1061R1,2	✓	✓
1,5	4,0	1061R1,5	✓	✓
2,0	5,0	1061R2,0	✓	✓
2,5	6,0	1061R2,5	✓	✓
3,0	7,5	1061R3,0	✓	✓

1061R - r

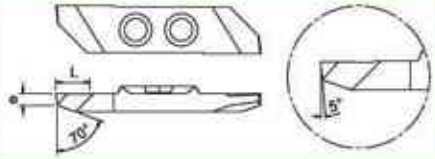
Back turning insert with «parisian cut» and radius
Drehplatte hinten mit «Pariserschliff» und Radius
Tourneur arrière avec «coupe parisienne» et rayon



e	L	r	Article nr. Artikel Nr. N° Article	BI90	BI40
1,0	3,0	0,1	1061R1,0 - r 0,1 -	✓	✓
1,0	3,0	0,2	1061R1,0 - r 0,2 -	✓	✓
1,2	3,0	0,1	1061R1,2 - r 0,1 -	✓	✓
1,2	3,0	0,2	1061R1,2 - r 0,2 -	✓	✓
1,5	4,0	0,1	1061R1,5 - r 0,1 -	✓	✓
1,5	4,0	0,2	1061R1,5 - r 0,2 -	✓	✓
2,0	5,0	0,1	1061R2,0 - r 0,1 -	✓	✓
2,0	5,0	0,2	1061R2,0 - r 0,2 -	✓	✓
2,5	6,0	0,1	1061R2,5 - r 0,1 -	✓	✓
2,5	6,0	0,2	1061R2,5 - r 0,2 -	✓	✓
3,0	7,5	0,1	1061R3,0 - r 0,1 -	✓	✓
3,0	7,5	0,2	1061R3,0 - r 0,2 -	✓	✓

1062R

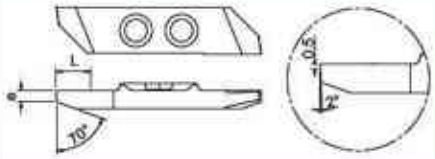
Back turning insert with «parisian cut»
Drehplatte hinten mit «Pariserschliff»
Tourneur arrière avec «coupe parisienne»



e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
1,0	6,0	1062R1,0	✓	✓
1,5	6,0	1062R1,5	✓	✓
2,0	6,0	1062R2,0	✓	✓

1062RO

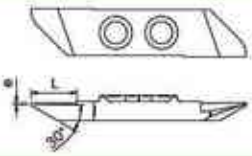
Back turning insert
Drehplatte hinten
Tourneur arrière



e	L	Article nr. Artikel Nr. N° Article	BI40	BI90	BI100
1,0	5,0	1062RO1,0	✓	✓	✓
1,5	6,0	1062RO1,5	✓	✓	
2,0	7,5	1062RO2,0	✓		

1068RO

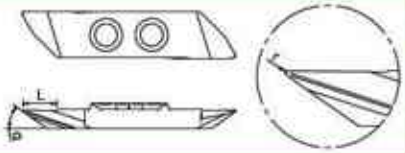
Back turning insert
Drehplatte hinten
Tourneur arrière



e	L	Article nr. Artikel Nr. N° Article	BI90
0,5	8,0	1068RO0,5	✓

1063Rb - r

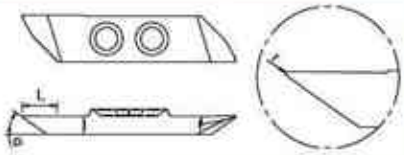
Back turning insert with chip roller and radius
Drehplatte hinten mit Spanbrecher und Radius
Tourneur arrière avec brise-copeau et rayon



L	α	r	Article nr. Artikel Nr. N° Article	BI90
6,0	29°	0,15	1063Rb - 29° - r 0,15 -	✓
6,0	29°	0,35	1063Rb - 29° - r 0,35 -	✓
6,0	35°	0,15	1063Rb - 35° - r 0,15 -	✓
6,0	35°	0,35	1063Rb - 35° - r 0,35 -	✓

1063RO - r

Back turning insert with chip roller and radius
Drehplatte hinten mit Spanbrecher und Radius
Tourneur arrière avec brise-copeau et rayon



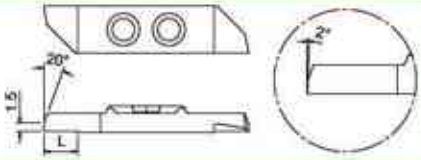
L	α	r	Article nr. Artikel Nr. N° Article	BI90
6,0	29°	0,15	1063RO - 29° - r 0,15 -	✓
6,0	29°	0,35	1063RO - 29° - r 0,35 -	✓
6,0	35°	0,15	1063RO - 35° - r 0,15 -	✓
6,0	35°	0,35	1063RO - 35° - r 0,35 -	✓

Front turning
Drehen vor dem Bund
Tournage avant

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

1064R

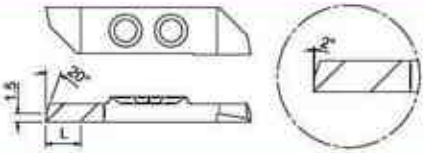
Front turning insert
Drehplatte vorne
Tourneur avant



L	Article nr. Artikel Nr. N° Article	BI40	BI90	BI100
6,0	1064R	✓	✓	✓

1065R

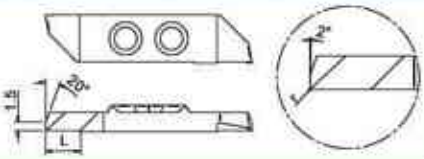
Front turning insert with chip breaker
Drehplatte vorne mit Spanbrecher
Tourneur avant avec brise-copeau



L	Article nr. Artikel Nr. N° Article	BI40	BI90
6,0	1065R	✓	✓

1065R - r

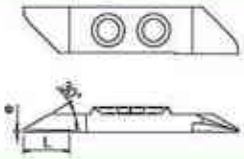
Front turning insert with chip breaker and radius
Drehplatte vorne mit Spanbrecher und Radius
Tourneur avant avec brise-copeau et rayon



L	r	Article nr. Artikel Nr. N° Article	BI40
6,0	0,1	1065R - r 0,1 -	✓
6,0	0,2	1065R - r 0,2 -	✓

1067RO

Front turning insert
Drehplatte vorne
Tourneur avant



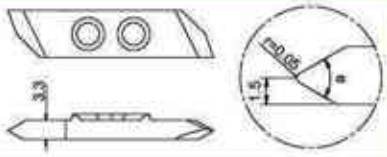
e	L	Article nr. Artikel Nr. N° Article	BI90
0,5	8,0	1067RO0,5	✓

Threading
Gewindestrehlen
Filetage

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

1080R

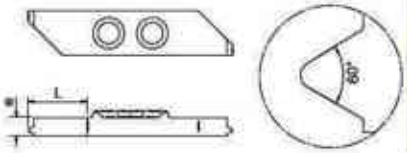
Threading insert with partial profile
Gewindeplatte mit Teilprofil
Fileteur avec profil partiel



a	Article nr. Artikel Nr. N° Article	BI40	BI90
55°	1080R - 55° -	✓	✓
60°	1080R - 60° -	✓	✓

1081R

Threading insert with full profile
Gewindeplatte mit Vollprofil
Fileteur avec profil complet



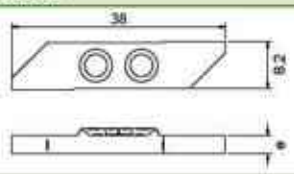
e	L	Pitch Teilung Pas	M	Article nr. Artikel Nr. N° Article	BI40
1,0	3,0	0,45	2,5	1081R0,45	✓
1,0	3,0	0,50	3	1081R0,5	✓
1,0	3,0	0,60	–	1081R0,6	✓
1,0	3,0	0,70	4	1081R0,7	✓
1,5	4,5	0,80	5	1081R0,8	✓
1,5	4,5	1,00	6	1081R1,0	✓
1,5	4,5	1,25	4,5	1081R1,25	✓
2,0	5,0	1,50	10	1081R1,5	✓
2,0	5,0	1,75	12	1081R1,75	✓
2,5	5,0	2,00	16	1081R2,0	✓

Blank
Rohling
Ebauche

L : Left machining
L : Linke Bearbeitung
L : Usinage à gauche

1040L

Blank insert
Rohling Wendeplatte
Plaquette ébauche



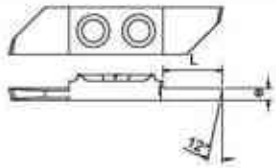
e	Article nr. Artikel Nr. N° Article	BI40
3,3	1040L3,3	✓

Guide bush cut off Ø 20 mm
Abstechen an der Führungsbüchse Ø 20 mm
Tronçonnage côté canon Ø 20 mm

L : Left machining
L : Linke Bearbeitung
L : Usinage à gauche

1050L

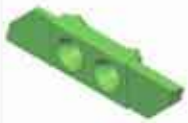
Cutting insert 12°
Abstechplatte 12°
Tronçonneur 12°

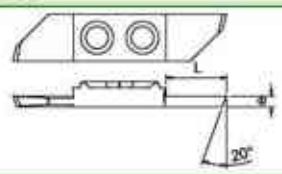


e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
1,0	5,0	1050L1,0	✓	✓
1,2	6,0	1050L1,2	✓	✓
1,5	7,5	1050L1,5	✓	✓
1,8	9,0	1050L1,8	✓	
2,0	10,5	1050L2,0	✓	✓
2,5	10,5	1050L2,5	✓	✓
3,0	10,5	1050L3,0	✓	✓

1052L

Cutting insert 20°
Abstechplatte 20°
Tronçonneur 20°

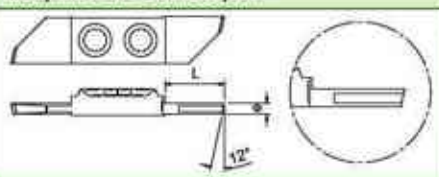




e	L	Article nr. Artikel Nr. N° Article	BI40
1,5	7,5	1052L1,5	✓
2,0	10,5	1052L2,0	✓
2,5	10,5	1052L2,5	✓

1054L

Cutting insert with chip roller
Abstechplatte mit Spanroller
Tronçonneur avec roule-copeau



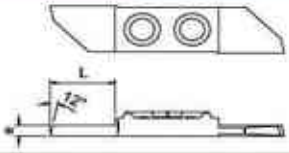
e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
1,5	7,5	1054L1,5	✓	✓
2,0	10,5	1054L2,0	✓	✓
2,5	10,5	1054L2,5		✓

Sub spindle cut off Ø 18 mm
Abstechen an der Abgreifzange Ø 18 mm
Tronçonnage côte prise de pièce Ø 18 mm

L : Left machining
L : Linke Bearbeitung
L : Usinage à gauche

1053L

Opposite cutting insert
Umgekehrte Abstechplatte
Tronçonneur inversé



e	L	Article nr. Artikel Nr. N° Article	Bi40
1,2	6,0	1053L1,2	✓
1,5	7,5	1053L1,5	✓
2,0	10,5	1053L2,0	✓

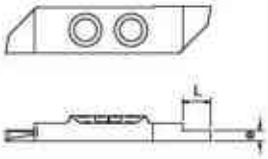
Use with 10xxR tool holders
Verwendung mit 10xxR Werkzeughalter
Utilisation avec les porte-outils 10xxR

Back turning
Drehen hinter dem Bund
Tournage arrière

L : Left machining
L : Linke Bearbeitung
L : Usinage à gauche

1060LP

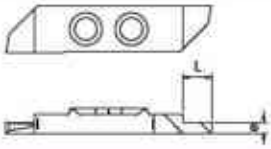
Back turning insert 0°
Drehplatte hinten 0°
Tourneur arrière 0°



e	L	Article nr. Artikel Nr. N° Article	Bi40
0,5	2,0	1060LP0,5	✓
0,8	2,0	1060LP0,8	✓
1,0	3,0	1060LP1,0	✓
1,5	4,0	1060LP1,5	✓
2,0	5,0	1060LP2,0	✓
2,5	6,0	1060LP2,5	✓
3,0	6,0	1060LP3,0	✓

1061L

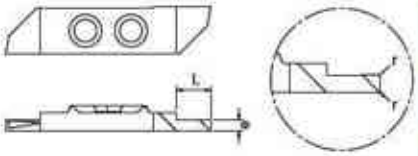
Back turning insert with «parisian cut»
Drehplatte hinten mit «Pariserschliff»
Tourneur arrière avec «coupe parisienne»



e	L	Article nr. Artikel Nr. N° Article	Bi40
1,0	3,0	1061L1,0	✓
1,5	4,0	1061L1,5	✓
1,8	4,0	1061L1,8	✓
2,0	5,0	1061L2,0	✓
2,5	6,0	1061L2,5	✓
3,0	7,5	1061L3,0	✓

1061L - r

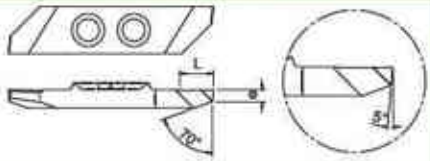
Back turning insert with «parisian cut» and radii
Drehplatte hinten mit «Pariserschliff» und Radien
Tourneur arrière avec «coupe parisienne» et rayons



e	L	Article nr. Artikel Nr. N° Article	Bi40	Bi90
1,5	4,0	1061L1,5 - r 0,1 -	✓	
1,5	4,0	1061L1,5 - r 0,2 -	✓	✓
2,0	5,0	1061L2,0 - r 0,1 -	✓	✓
2,0	5,0	1061L2,0 - r 0,2 -	✓	✓
2,5	6,0	1061L2,5 - r 0,1 -	✓	
2,5	6,0	1061L2,5 - r 0,2 -	✓	
3,0	6,0	1061L3,0 - r 0,2 -	✓	✓

1062L

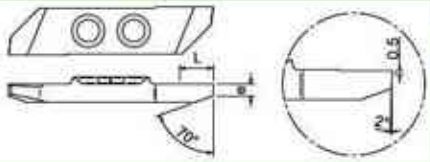
Back turning insert with «parisian cut»
Drehplatte hinten mit «Pariserschliff»
Tourneur arrière avec «coupe parisienne»



e	L	Article nr. Artikel Nr. N° Article	BI40	BI90
1,0	6,0	1062L1,0	✓	✓
1,5	6,0	1062L1,5	✓	
2,0	6,0	1062L2,0	✓	

1062LO

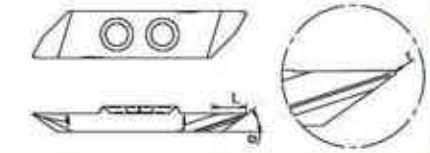
Back turning insert
Drehplatte hinten
Tourneur arrière



e	L	Article nr. Artikel Nr. N° Article	BI40
1,0	5,0	1062LO1,0	✓
1,5	6,0	1062LO1,5	✓
2,0	7,5	1062LO2,0	✓

1063Lb - r

Back turning insert with chip roller and radius
Drehplatte hinten mit Spanbrecher und Radius
Tourneur arrière avec brise-copeau et rayon



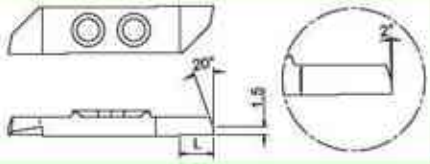
L	α	r	Article nr. Artikel Nr. N° Article	BI90
6,0	29°	0,15	1063Lb - 29° - r 0,15 -	✓
6,0	29°	0,35	1063Lb - 29° - r 0,35 -	✓
6,0	35°	0,15	1063Lb - 35° - r 0,15 -	✓
6,0	35°	0,35	1063Lb - 35° - r 0,35 -	✓

Front turning
Drehen vor dem Bund
Tournage avant

L : Left machining
L : Linke Bearbeitung
L : Usinage à gauche

1064L

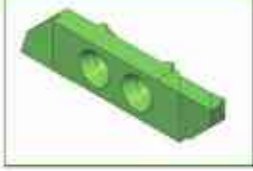
Front turning insert
Drehplatte vorne
Tourneur avant

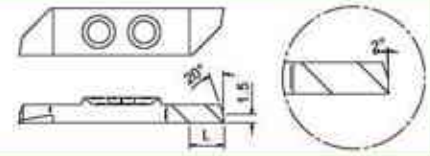


L	Article nr. Artikel Nr. N° Article	BI40	TIN
6,0	1064L	✓	✓

1065L

Front turning insert with chip breaker
Drehplatte vorne mit Spanbrecher
Tourneur avant avec brise-copeau





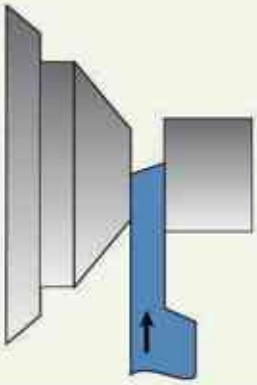
L	Article nr. Artikel Nr. N° Article	BI40
6,0	1065L	✓

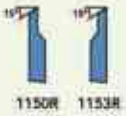
OXOline 1000

Field of application of OXOline 1100
Anwendungsbereich von OXOline 1100
Champ d'application d'OXOline 1100

Maximum cutting-off
Maximaler Abstechdurchmesser
Tronçonnage maximum

Ø 32 mm





Cutting off
Abstechen
Tronçonnage

11xxR	Right tool holder Werkzeughalter rechts Porte-outil à droite	Section C Querschnitt C Section C	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
		10 x 10	124	1110R
		12 x 12	124	1112R
		16 x 16	124	1116R
		20 x 20	124	1120R

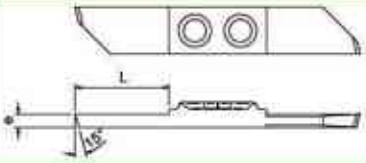
11xxL	Left tool holder Werkzeughalter links Porte-outil à gauche	Section C Querschnitt C Section C	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
		10 x 10	124	1110L
		12 x 12	124	1112L
		16 x 16	124	1116L
		20 x 20	124	1120L
		25 x 25	100	1125L

Guide bush cut off Ø 32 mm
Abstechen an der Führungsbüchse Ø 32 mm
Tronçonnage côté canon Ø 32 mm

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

1150R

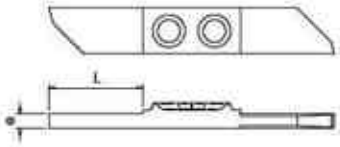
Cutting insert 15°
Abstechplatte 15°
Tronçonneur 15°



e	L	Article nr. Artikel Nr. N° Article	BI90
1,5	15,0	1150R1,5	✓
2,0	17,0	1150R2,0	✓
2,5	17,0	1150R2,5	✓
3,0	17,0	1150R3,0	✓

1150RP

Cutting insert 0°
Abstechplatte 0°
Tronçonneur 0°



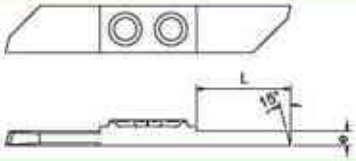
e	L	Article nr. Artikel Nr. N° Article	BI90
2,0	17,0	1150RP2,0	✓
2,5	17,0	1150RP2,5	✓
3,0	17,0	1150RP3,0	✓

Sub spindle cut off Ø 32 mm
Abstechen an der Abgreifzange Ø 32 mm
Tronçonnage côte prise de pièce Ø 32 mm

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

1153R

Opposite cutting insert 15°
Umgekehrte Abstechplatte 15°
Tronçonneur inversé 15°



e	L	Article nr. Artikel Nr. N° Article	BI90
1,5	15,0	1153R1,5	✓
2,0	17,0	1153R2,0	✓
2,5	17,0	1153R2,5	✓
3,0	17,0	1153R3,0	✓

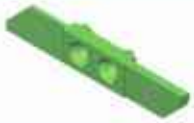
Use with 11xxL tool holders
Verwendung mit 11xxL Werkzeughalter
Utilisation avec les porte-outils 11xxL

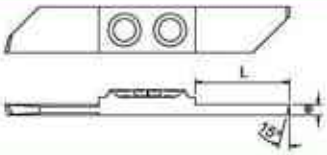
Guide bush cut off Ø 32 mm
Abstechen an der Führungsbüchse Ø 32 mm
Tronçonnage côté canon Ø 32 mm

L : Left machining
L : Linke Bearbeitung
L : Usinage à gauche

1150L

Cutting insert 15°
Abstechplatte 15°
Tronçonneur 15°

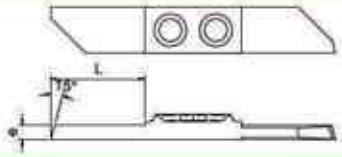




e	L	Article nr. Artikel Nr. N° Article	BI90
2,0	17,0	1150L2,0	✓
2,5	17,0	1150L2,5	✓
3,0	17,0	1150L3,0	✓

Sub spindle cut off Ø 32 mm
Abstechen an der Abgreifzange Ø 32 mm
Tronçonnage côte prise de pièce Ø 32 mm

L : Left machining
L : Linke Bearbeitung
L : Usinage à gauche

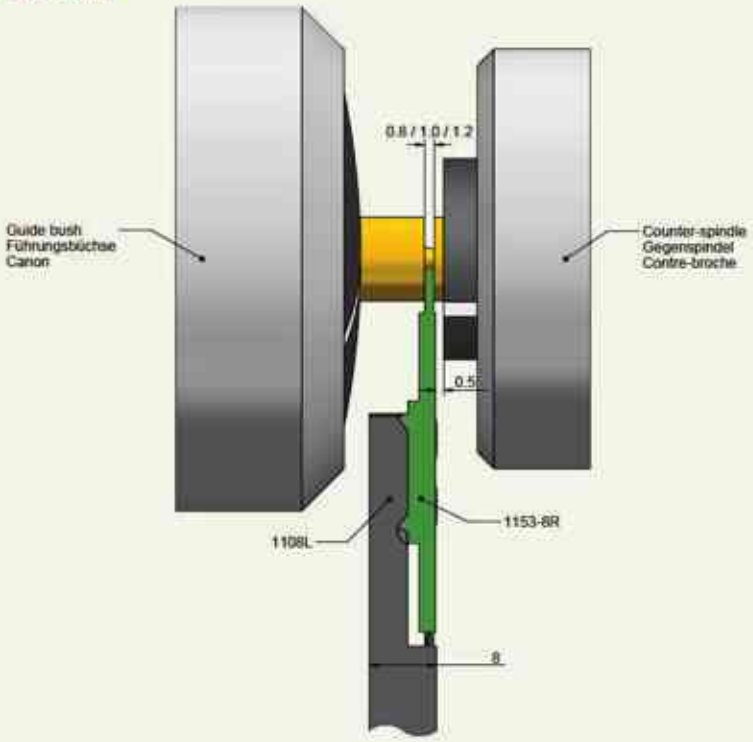
1153L	Opposite cutting insert 15° Umgekehrte Abstechplatte 15° Tronçonneur inversé 15°	e	L	Article nr. Artikel Nr. N° Article	BI90
		2,0	17,0	1153L2,0	✓
		2,5	17,0	1153L2,5	✓
		3,0	17,0	1153L3,0	✓
				Use with 11xxR tool holders *Verwendung mit 11xxR Werkzeughalter* *Utilisation avec les porte-outils 11xxR*	

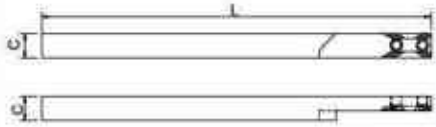
Field of application of OXOline 1100-8
Anwendungsbereich von OXOline 1100-8
Champ d'application d'OXOline 1100-8

Maximum cutting-off
Maximaler Abstechdurchmesser
Tronçonnage maximum

Ø 32 mm

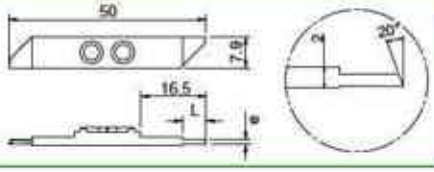
Cutting off
Abstechen
Tronçonnage



11x8L	Left tool holder 8x8 mm Werkzeughalter links 8x8 mm Porte-outil à gauche 8x8 mm	Section C Querschnitt C Section C	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
		8 x 8	125	1108L
		Use with 1153-8R inserts *Verwendung mit 1153-8R Wendeplatten* *Utilisation avec les plaquettes 1153-8R*		

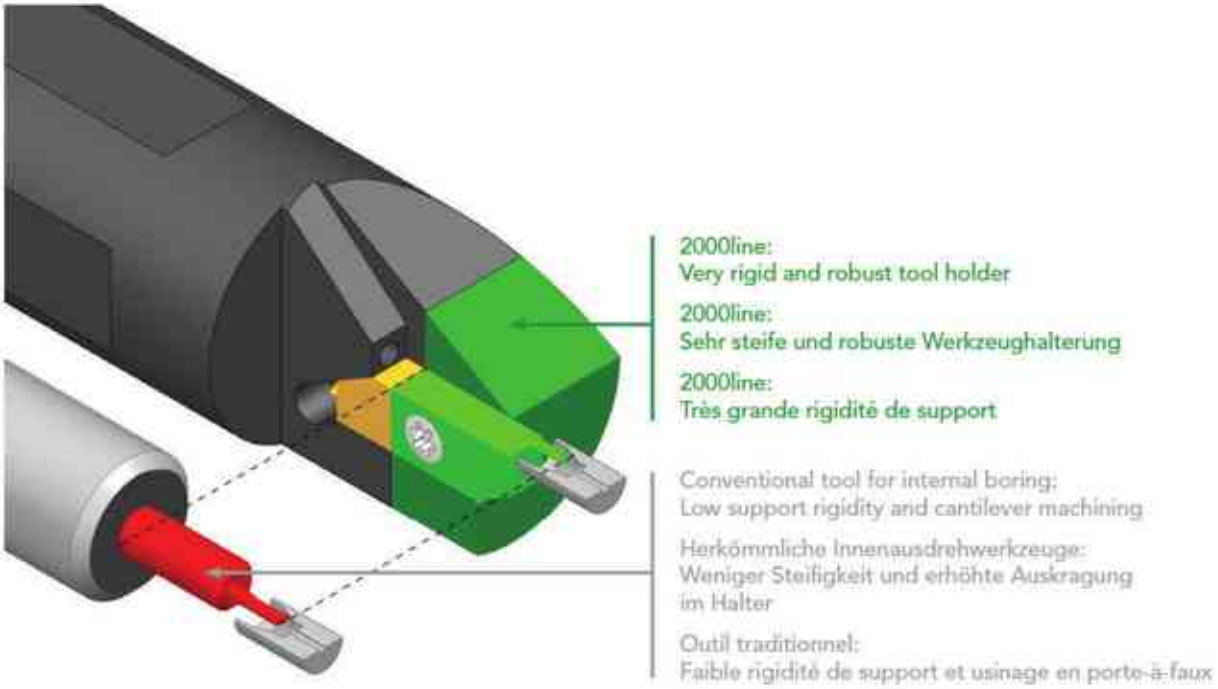
Sub spindle cut off Ø 12 mm
Abstechen an der Abgreifzange Ø 12 mm
Tronçonnage côte prise de pièce Ø 12 mm

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

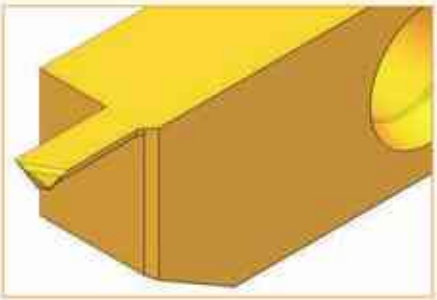
1153-8R	Opposite cutting insert 20° Umgekehrte Abstechplatte 20° Tronçonneur inversé 20°	e	L	Article nr. Artikel Nr. N° Article	B/90
		0,8	4	1153-8R0,8	✓
		1,0	4	1153-8R1,0	✓
		1,2	6	1153-8R1,2	✓
		Use with 1108L tool holders *Verwendung mit 1108L Werkzeughalter* *Utilisation avec les porte-outils 1108L*			

2000 line

Insert tools for internal boring
Wendeplattenwerkzeuge zum Innenausdrehen
Outils à plaquette pour usinage intérieur

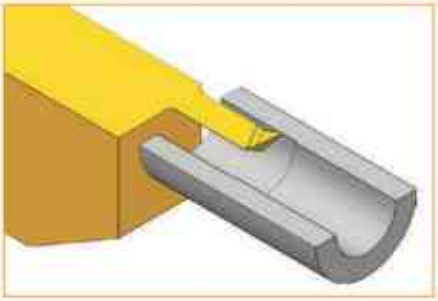


Presentation of 2000 line
Vorstellung der 2000 line
Présentation de la 2000 line



Advantages of 2000 line

- Internal boring with indexable insert: tool at very affordable price.
- Up to 2 cutting edges.
- Tool holders available with internal coolant.



Vorteile der 2000 line

- Innenausdrehen mit Wendeschneidplatte: günstiger Preis.
- Bis 2 Schneidkanten.
- Werkzeughalter mit Innenkühlung erhaltbar.

Avantages de la 2000 line

- Usinage intérieur par plaquette amovible: outil à prix avantageux.
- Jusqu'à 2 arêtes de coupe.
- Porte-outils disponibles avec arrosage intérieur.

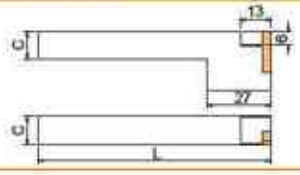
Coating of inserts
Beschichtung der Wendeplatten
Revêtement des plaquettes

✓ = Available
✓ = Verfügbar
✓ = Disponible

Designation Bezeichnung Désignation	Description Beschreibung Description
BI40	**AlTi(C)N-based** • Universal coating. • High hardness. • Very smooth surface finish. • Suitable for steel and stainless steel. **AlTi(C)N-Basis** • Universalbeschichtung. • Hohe Schichthärte. • Sehr glatte Oberfläche. • Geeignet für Stahl und Edelstahl. **Base AlTi(C)N** • Revêtement universel. • Dureté élevée. • Bon glissement du copeau. • Adapté à l'acier et à l'acier inox.

20xxR

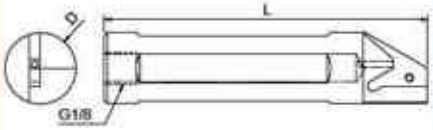
Right tool holder
Werkzeughalter rechts
Porte-outil à droite



Section C Querschnitt C Section C	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
8 x 8	100	2008R
10 x 10	100	2010R
12 x 12	100	2012R
16 x 16	100	2016R

2000R IK

Right tool holder with internal coolant
Werkzeughalter rechts mit Innenkühlung
Porte-outil à droite avec arrosage intérieur



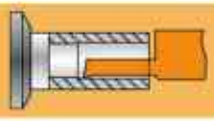
Diameter D Durchmesser D Diamètre D	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
16	100	2000R16100IK
20	100	2000R20100IK
22	150	2000R22150IK
22	100	2000R22100IK
3/4"	100	2000R34100IK

001-4

Screw for standard tool holder
Schraube für Standard-Werkzeughalter
Vis pour porte-outil standard

Article nr. Artikel Nr. N° Article
001-4

M3,0 x 7,5

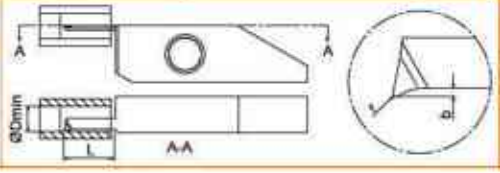


Internal boring
Innenausdrehen
Alésage intérieur

R : Right machining
R : Rechte Bearbeitung
R : Usinage à droite

2141R

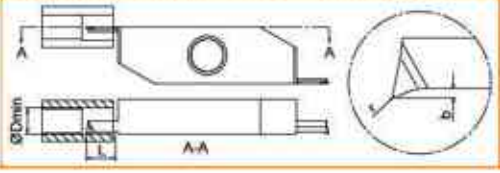
Insert for internal boring with 1 cutting edge
Wendeplatte zum Innenausdrehen mit 1 Schneidkante
Plaquette pour alésage intérieur à 1 arête de coupe



ØDmin	L	r	b	Article nr. Artikel Nr. N° Article	BI90
1,5	5,0	0,05	0,20	2141R1,5 - r 0,05 - BI90	✓
2,0	5,0	0,05	0,25	2141R2,0 - r 0,05 - BI90	✓
2,5	5,0	0,05	0,30	2141R2,5 - r 0,05 - BI90	✓
3,0	5,0	0,05	0,40	2141R3,0 - r 0,05 - BI90	✓

2241R

Insert for internal boring with 2 cutting edges
Wendeplatte zum Innenausdrehen mit 2 Schneidkanten
Plaquette pour alésage intérieur à 2 arêtes de coupe

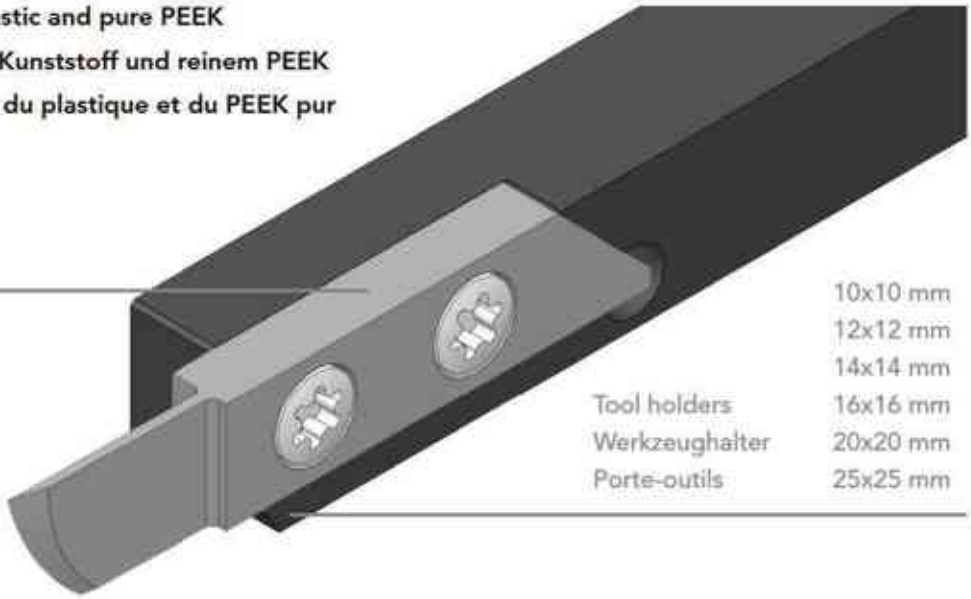


ØDmin	L	r	b	Article nr. Artikel Nr. N° Article	BI90
1,0	3,0	0,05	0,20	2241R1,0 - r 0,05 - BI90	✓
1,5	3,0	0,05	0,20	2241R1,5 - r 0,05 - BI90	✓
2,0	3,0	0,05	0,25	2241R2,0 - r 0,05 - BI90	✓
2,5	3,0	0,05	0,30	2241R2,5 - r 0,05 - BI90	✓
3,0	3,0	0,05	0,40	2241R3,0 - r 0,05 - BI90	✓

Carbide knife for plastic machining
Hartmetall-Messer für Kunststoffbearbeitung
Couteau en métal dur pour usinage du plastique

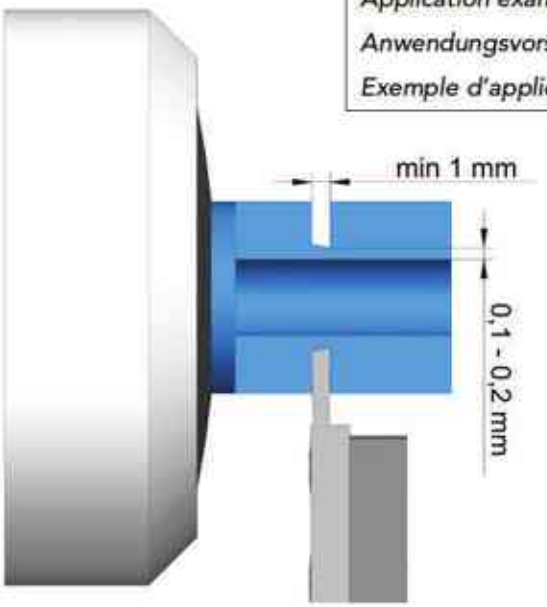
For the cut-off of plastic and pure PEEK
Zum Abstechen von Kunststoff und reinem PEEK
Pour le tronçonnage du plastique et du PEEK pur

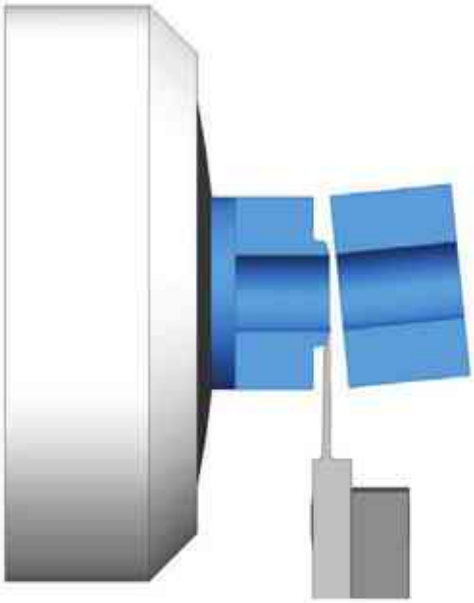
990RK15



	10x10 mm
	12x12 mm
	14x14 mm
Tool holders	16x16 mm
Werkzeughalter	20x20 mm
Porte-outils	25x25 mm

Application example
Anwendungsvorschlag
Exemple d'application

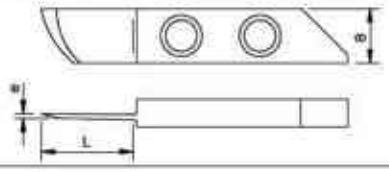




1. *Pre-cut with standard cut off insert*
1. *Vorstechen mit einer standard Abstechplatte*
1. *Pré-coupe avec tronçonneur standard*

2. *Finishing cut with the knife, avoiding any burr on the part.*
2. *Abstechen mit dem Messer, wodurch ein Grat auf dem Werkstück vermieden wird.*
2. *Coupe de finition avec le couteau, évitant toute bavure sur la pièce.*

Carbide knife for plastic machining
Hartmetall-Messer für Kunststoffbearbeitung
Couteau en métal dur pour usinage du plastique

990R	Carbide knife Hartmetall-Messer Couteau en métal dur	e	L	Article nr. Artikel Nr. N° Article
		0,6	13,0	990RK15

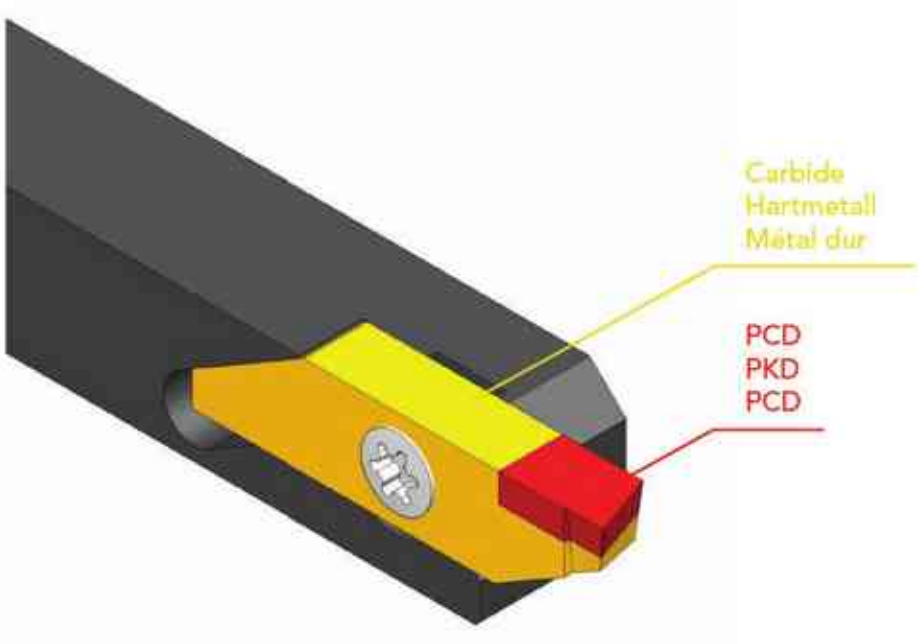
100BH3-1xxR	Right tool holder Rechts Werkzeughalter Porte-outil à droite	Section C Querschnitt C Section C	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
		10 x 10	125	100BH3-110R
		12 x 12	125	100BH3-112R
		14 x 14	125	100BH3-114R
		16 x 16	125	100BH3-116R
		20 x 20	125	100BH3-120R
		25 x 25	100	100BH3-125R

100-2	Screw for standard tool holders 100BH3-1xxR Schraube für standard Werkzeughalter 100BH3-1xxR Vis pour porte-outil standard 100BH3-1xxR	Article nr. Artikel Nr. N° Article
	M3,5 x 9	100-2

Indexable insert with polycrystalline diamond insert (PCD)
Diamond profile made on customer's request !

Wendeplatten mit polykristalliner Diamant Bestückung (PKD)
Bearbeitung des Profils nach Kunde Wunsch !

Plaquettes amovibles avec insert en diamant polycristallin (PCD)
Profil du diamant réalisé à la demande du client !



☐ Field of application : non-ferrous materials
Recommended for following materials : CuBe (hardened and non hardened), gold, platinium, copper.

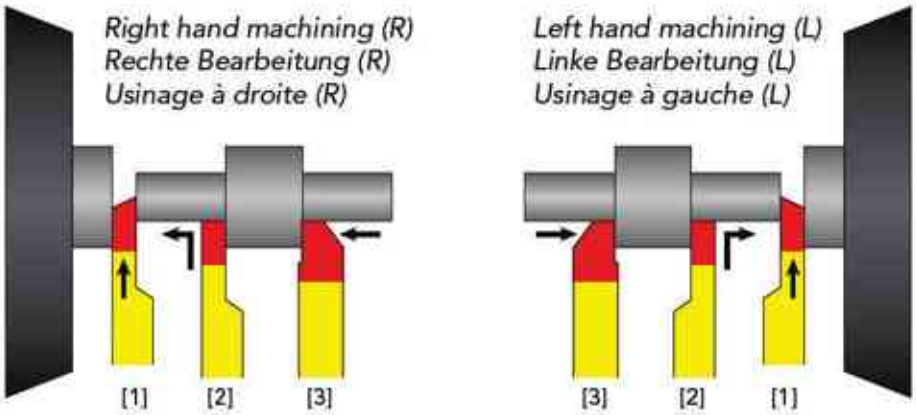
Benutzungsfeld : Nicht Eisen ligierte Materialien (Buntmetall).
Empfohlene Materialien : CuBe (gehärtet und nicht gehärtet), Gold, Platin, Kupfer.

Domaine d'application : matériaux non-ferreux.
Recommandées pour les matières suivantes : CuBe (durci et non-durci), or, platine, cuivre.

☐ Short delivery time : **2 weeks !**

Kurze Lieferzeit : **2 Wochen !**

Court délai de livraison : **2 semaines !**



- Developed for cutting-off [1], back turning [2] and front turning [3].

  Entwickelt zum Abstechen [1], hinten Drehen [2] und vorne Drehen [3].

  Conçues pour le tronçonnage [1], le tournage arrière [2] et le tournage avant [3].

- Diamond profile realizable up to 3,3 mm.

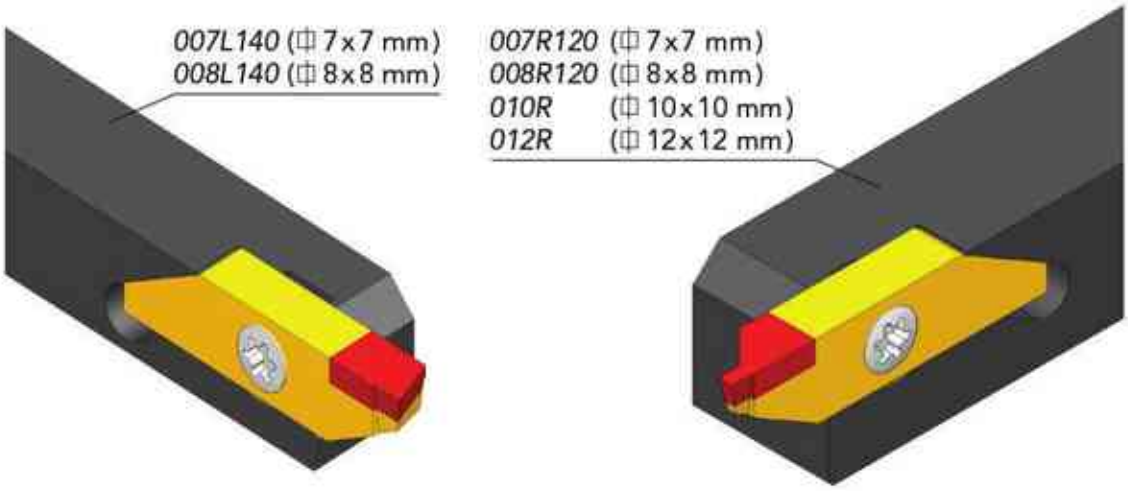
  Wendeplattenprofil machbar bis zu 3,3 mm.

  Profil du diamant réalisable jusqu'à une épaisseur de 3,3 mm.

- Tool-holders available in left (L) and right (R) execution as well as in different sections.

  Linke (L) und Rechte (R) Halter in verschiedene Ausführungen verfügbar.

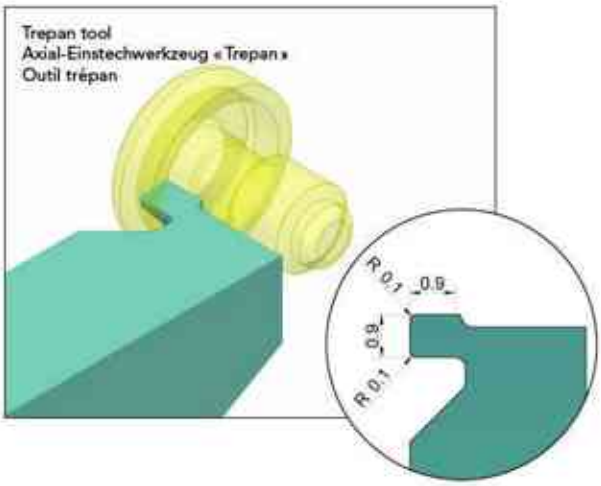
  Porte-outils disponibles en exécution gauche (L) et droite (R) et en différentes sections.



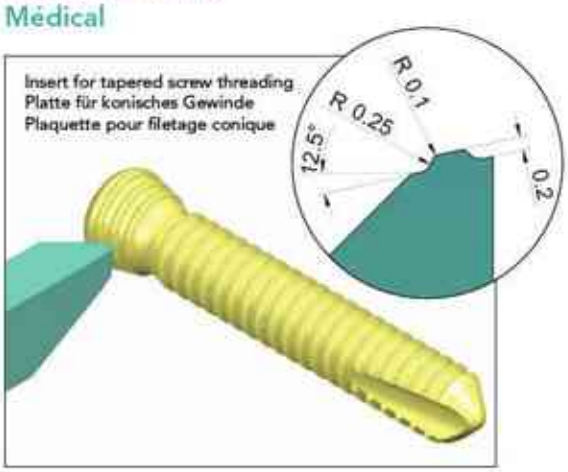
Sline

Special adaptable inserts
Sonderwendeplatten
Plaquettes spéciales sur mesure

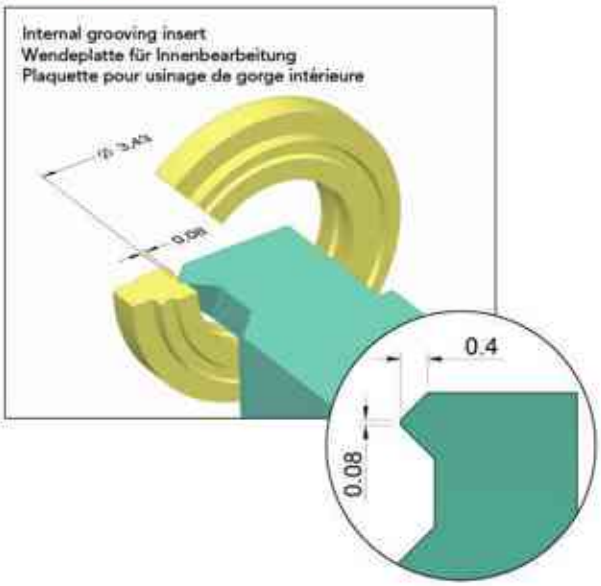
Dental
Dentaltechnik
Dentaire



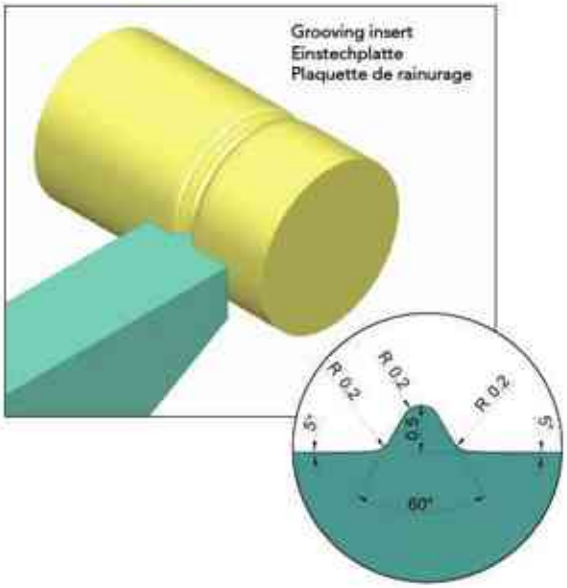
Medical
Medizinaltechnik
Médical



Watch industry
Uhrenindustrie
Horlogerie

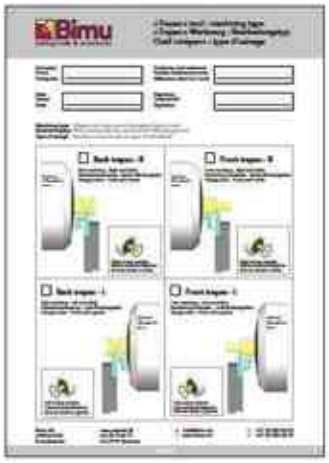


Micromechanics
Mikromechanik
Micromécanique



Sline

2 cutting edges
2 Schneidkanten
2 arêtes de coupe



«Back» or «front» execution

See the «Trepan tool: machining type» documentation for further information

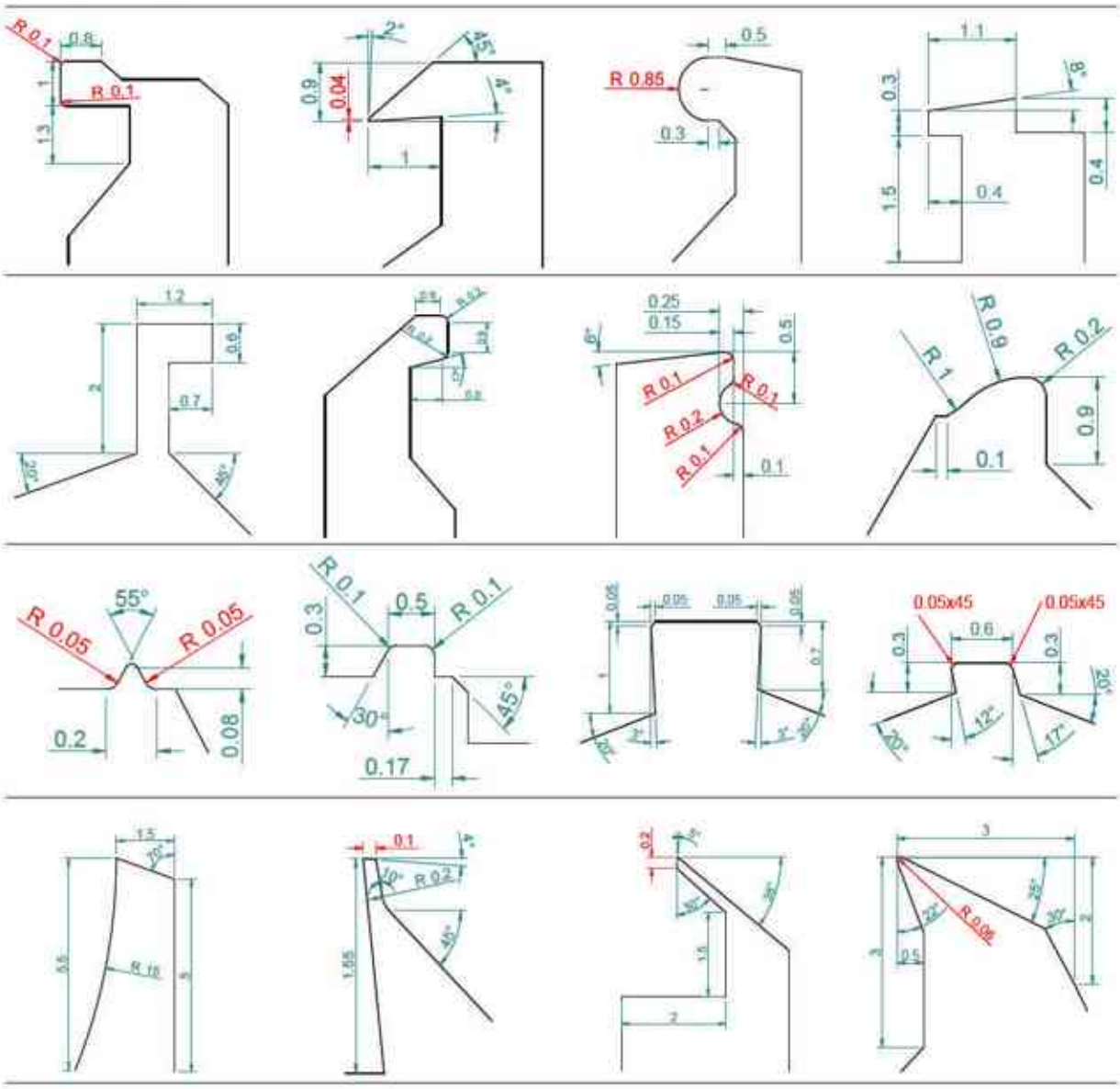
Bearbeitung «hinten» oder «vorne»

Siehe die «Trepan Werkzeug: Bearbeitungstyp» Dokumentation für weitere Informationen

Exécution «arrière» ou «avant»

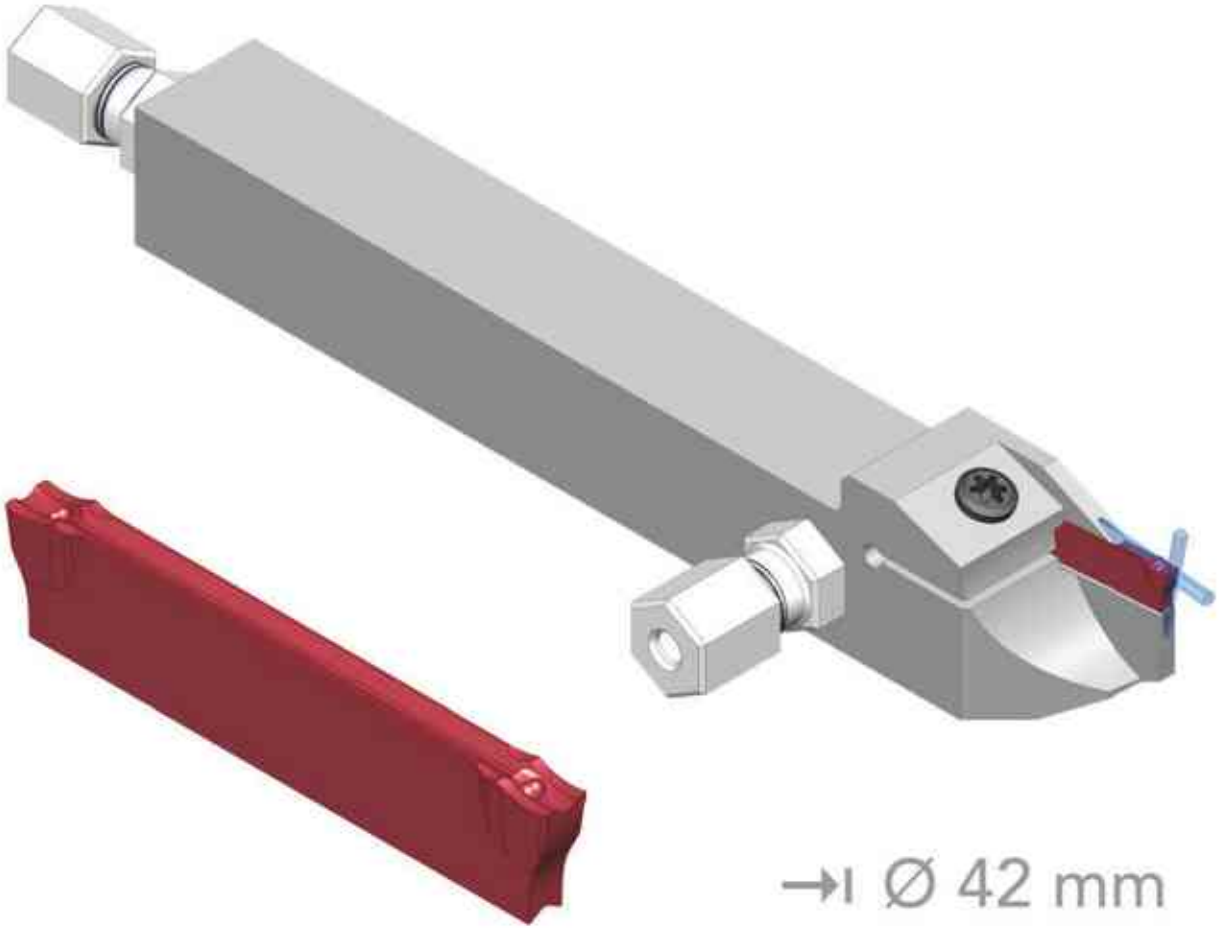
Voir le document «Outil trépan : type d'usinage pour plus d'information»

Examples of realizable profiles
Realisierbare Profilbeispiele
Exemples de profils réalisables



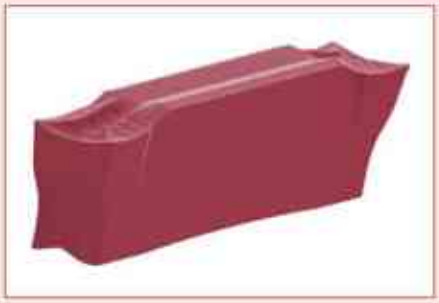
TGP line

Turning, grooving and parting off
Drehen, Einstechen und Abstechen
Tournage, fonçage et tronçonnage



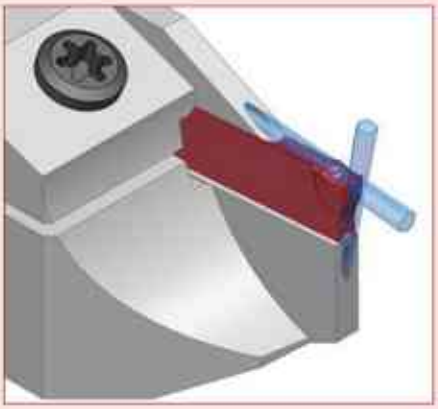
→| Ø 42 mm

Presentation of TGP line
Vorstellung der TGP line
Présentation de la TGP line



Advantages of TGP line

- Excellent suitability for universal application.
- Double sided inserts.
- High cutting edge stability.
- Good wear resistance.
- High application security.
- Increased tool lifetime thank to the double integrated coolant of the tool-holder.



Vorteile der TGP line

- Ausgezeichnete Eignung für den universellen Einsatz.
- Wendeplatten mit zwei Schneidkanten.
- Hohe Schneidkantenstabilität.
- Gute Verschleissfestigkeit.
- Hohe Anwendungssicherheit.
- Erhöhte Werkzeugstandzeit dank doppelt integrierter Kühlmittelzufuhr des Werkzeughalters.

Avantages de la TGP line

- Convient parfaitement aux applications universelles.
- Plaquettes à deux arêtes de coupes.
- Grande stabilité de l'arête de coupe.
- Bonne résistance à l'usure.
- Grande sécurité d'application.
- Durée de vie de l'outil augmentée grâce au double arrosage intégré du porte-outil.

Insert TGPline : field of application
Wendeplatten TGPline : Anwendungsbereiche
Plaquettes TGPline : champ d'application

Maximum cutting-off for inserts width 2 mm:

Maximaler Abstechdurchmesser für Wendeplatten Breite 2 mm:

Tronçonnage maximum pour plaquettes de largeur 2 mm:

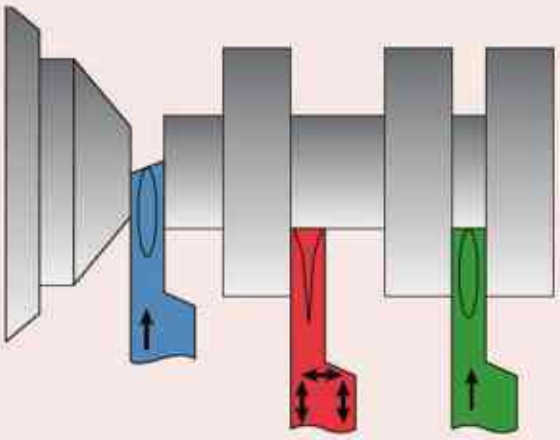
→I Ø 26 mm

Maximum cutting-off for inserts width 3 mm:

Maximaler Abstechdurchmesser für Wendeplatten Breite 3 mm:

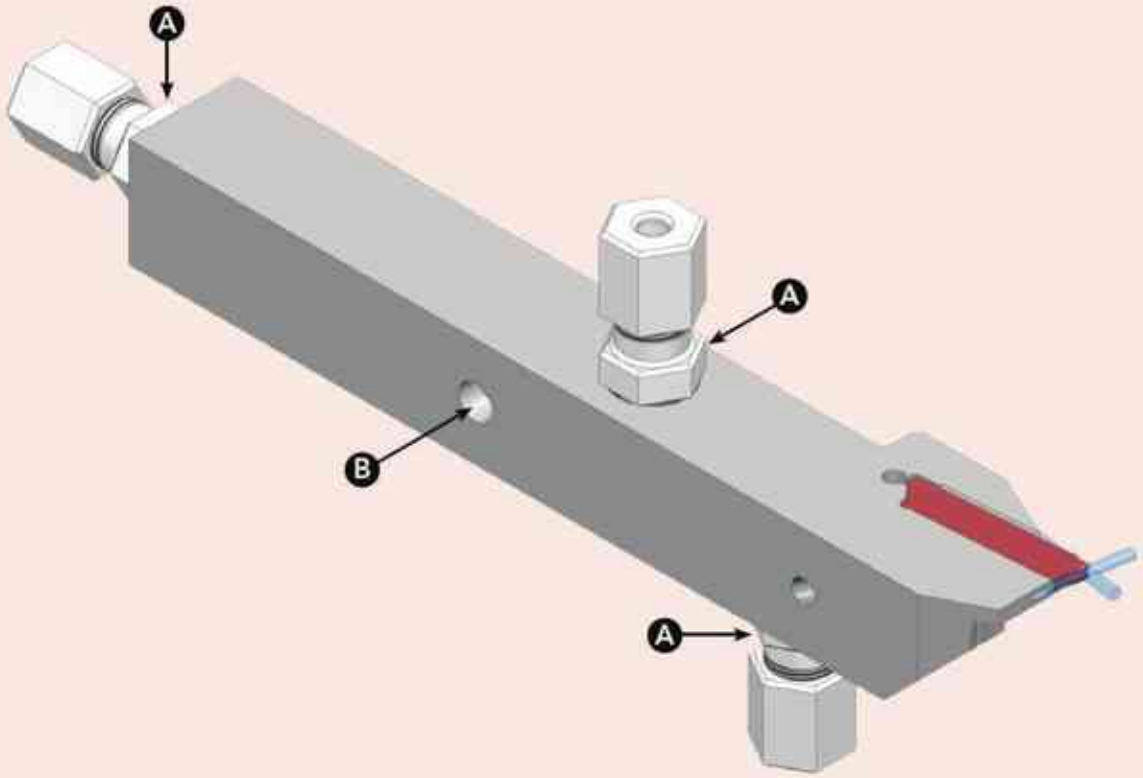
Tronçonnage maximum pour plaquettes de largeur 3 mm:

→I Ø 42 mm



TGP50R - r	TGP60N - r	TGP50N - r
Cutting off Abstechen Tronçonnage	Plunging-Turning Einstechen-Drehen Fonçage-Tournage	Plunging-Cutting off Einstechen-Abstechen Fonçage-Tronçonnage

Connection options for coolant supply
Anschlussmöglichkeiten für die Kühlmittelzufuhr
Possibilités de raccordement pour le système d'arrosage



Up to 4 possibilities for internal coolant supply

- **A** G1/8" inputs.
- **B** Inlet for direct coolant supply from the face of the tool holder.

Bis zu 4 Anschlussmöglichkeiten der inneren Kühlmittelzufuhr

- **A** G1/8" Eingänge.
- **B** Einlass für die direkte Kühlmittelzufuhr von der Unterseite des Werkzeughalters.

Jusqu'à 4 possibilités de raccordement pour le système d'arrosage

- **A** Entrées G1/8".
- **B** Entrée pour l'arrosage intérieur directement depuis la face du porte-outil.

Insert TGPline : geometries
Wendeplatten TGPline : Geometrien
Plaquettes TGPline : géométries

TGP050

- For cutting of and grooving.
- Especially for stainless steel.
- Problem solver for steel machining.

- Zum Abstechen und Einstechen.
- Speziell geeignet für rostfreien Edelstahl.
- Problemlöser für die Stahlbearbeitung.

- Pour le tronçonnage et le fonçage.
- Spécialement adapté à l'acier inox.
- La solution pour l'usinage de l'acier.

TGP060

- For grooving and turning.
- Suitable for all steel and stainless steel.
- Very good chip control.

- Zum Einstechen und Drehen.
- Geeignet für Stahl und rostfreien Edelstahl.
- Sehr gute Spankontrolle.

- Pour le fonçage et le tournage.
- Convient à tout type d'acier et d'acier inox.
- Excellente maîtrise du copeau.

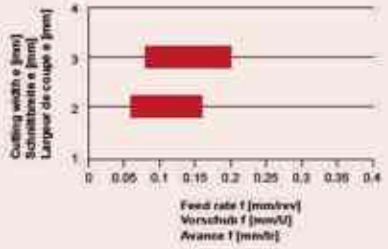
Coating of inserts
Beschichtung der Wendeplatten
Revêtement des plaquettes

✓ = Available
✓ = Verfügbar
✓ = Disponible

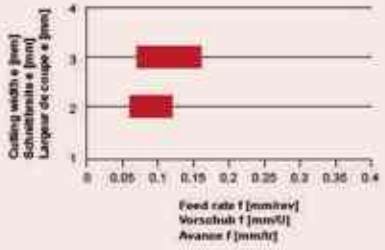
Designation Bezeichnung Désignation	Description Beschreibung Description
QM4	**TiAlN-based** Universal grade for steel, stainless steel and heat-resistant alloys. **TiAlN-Basis** Universalsorte für Stahl, Edelstahl und hitzebeständige Legierungen. **Base TiAlN** Qualité universelle pour l'acier, l'acier inoxydable et les alliages résistants à la chaleur.

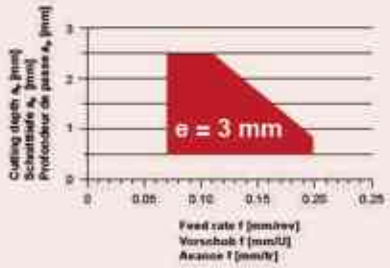
Insert TGPline : cutting data
Wendeplatten TGPline : Schnittwerte
Plaquettes TGPline : paramètres de coupe

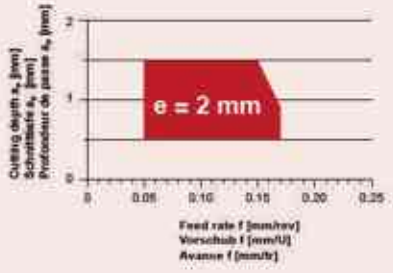
Geometry
Geometrie
Géométrie
TGP50



Geometry
Geometrie
Géométrie
TGP60



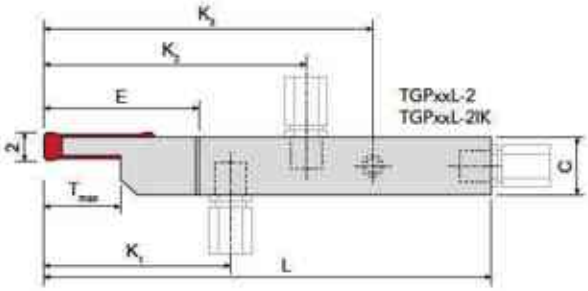


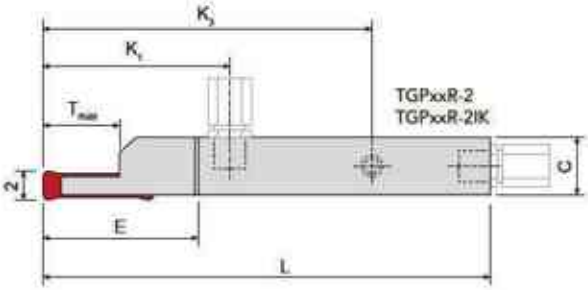


Insert TGPline : cutting data
Wendeplatten TGPline : Schnittwerte
Plaquettes TGPline : paramètres de coupe

		TGP50 / TGP60
Material Material Matériau	Type Typ Type	V_c [m/min]
Steel Stahl Acier	Non alloyed steel 0.15% – 0.45% C Unlegierter Stahl 0.15% – 0.45% C Acier non allié 0.15% – 0.45% C	80 – 180
	Low alloyed steel tempered Niedrig legierter Vergütungsstahl Acier revenu faiblement allié	60 – 150
	High alloyed steel tempered Hoch legierter Vergütungsstahl Acier revenu fortement allié	50 – 120
Stainless steel Rostfreier Stahl Acier inoxydable	Ferritic Feritisch Ferritique	50 – 200
	Austenitic Austenitisch Austénitique	50 – 180
	Duplex (ferritic-austenitic) Duplex (feritisch-austenitisch) Duplex (ferritique-austénitique)	50 – 100
	Martensitic Martensitisch Martensitique	50 – 80
Nickel or cobalt alloy Nickel- oder Kobaltlegierung Alliage à base de nickel ou de cobalt		15 – 25
Titanium Titan Titane		40 – 90

Tool holders for insert width 2 mm
Werkzeughalter für Wendeplatten Breite 2 mm
Porte-outils pour plaquettes de largeur 2 mm





TGPxxR-2	Right tool-holder Werkzeughalter rechts Porte-outil à droite	Section C Querschnitt C Section C	L	E	T_{max}	Article nr. Artikel Nr. N° Article
		12 x 12	125	22	13	TGP12R-2
		16 x 16	125	22	13	TGP16R-2
		Use with TGP...2,0... inserts *Verwendung mit TGP...2,0... Wendeplatten* *Utilisation avec les plaquettes TGP...2,0...*				

TGPxxL-2	Left tool-holder Werkzeughalter links Porte-outil à gauche	Section C Querschnitt C Section C	L	E	T_{max}	Article nr. Artikel Nr. N° Article
		12 x 12	125	22	13	TGP12L-2
		16 x 16	125	22	13	TGP16L-2
		Use with TGP...2,0... inserts *Verwendung mit TGP...2,0... Wendeplatten* *Utilisation avec les plaquettes TGP...2,0...*				

TGPxxR-2IK	Right tool-holder, with internal coolant Werkzeughalter rechts, mit Innenkühlung Porte-outil à droite, avec arrosage intégré	Section C Querschnitt C Section C	L	E	T_{max}	K_1	K_3	Article nr. Artikel Nr. N° Article
	Use with hydraulic connector G1/8" *(not included)* *Verwendung mit Hydraulikanschluss G1/8"* *(nicht enthalten)* *Utilisation avec raccord hydraulique G1/8"* *(non inclus)*	12 x 12	125	29	13	40	—	TGP12R-2IK
		16 x 16	125	29	13	34	73	TGP16R-2IK
		Use with TGP...2,0... inserts *Verwendung mit TGP...2,0... Wendeplatten* *Utilisation avec les plaquettes TGP...2,0...*						

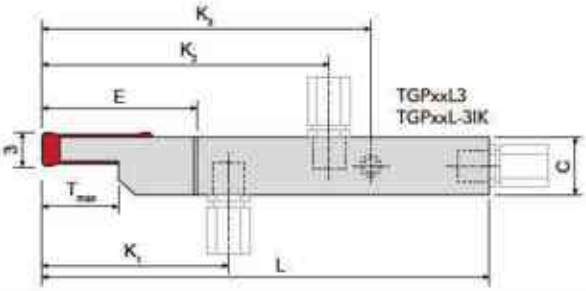
TGPxxL-2IK	Left tool-holder for 2 mm tool-holder Werkzeughalter links für 2 mm Wendeplatten Porte-outil à gauche pour plaquette 2 mm	Section C Querschnitt C Section C	L	E	T_{max}	K_1	K_2	K_3	Article nr. Artikel Nr. N° Article
	Use with hydraulic connector G1/8" *(not included)* *Verwendung mit Hydraulikanschluss G1/8"* *(nicht enthalten)* *Utilisation avec raccord hydraulique G1/8"* *(non inclus)*	12 x 12	125	29	13	40	55	—	TGP12L-2IK
		16 x 16	125	29	13	34	55	73	TGP16L-2IK
		Use with TGP...2,0... inserts *Verwendung mit TGP...2,0... Wendeplatten* *Utilisation avec les plaquettes TGP...2,0...*							

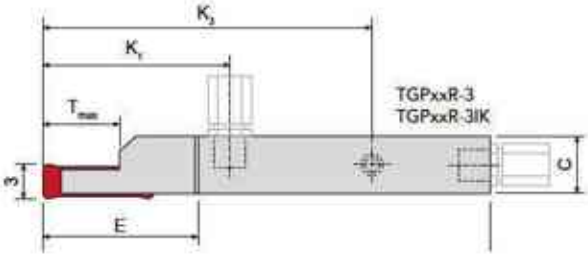
☞ Screw and key included

☞ Inklusive Schraube und Schlüssel

☞ Vis et clé incluses

Tool holders for insert width 3 mm
Werkzeughalter für Wendeplatten Breite 3 mm
Porte-outils pour plaquettes de largeur 3 mm





TGPxxR-3	Right tool-holder Werkzeughalter rechts Porte-outil à droite	Section C Querschnitt C Section C	L	E	T_{max}	Article nr. Artikel Nr. N° Article
		16 x 16	125	30	21	TGP16R-3
		20 x 20	125	39	21	TGP20R-3
		Use with TGP...3,0... inserts *Verwendung mit TGP...3,0... Wendeplatten* *Utilisation avec les plaquettes TGP...3,0...*				

TGPxxL-3	Left tool-holder Werkzeughalter links Porte-outil à gauche	Section C Querschnitt C Section C	L	E	T_{max}	Article nr. Artikel Nr. N° Article
		16 x 16	125	30	21	TGP16L-3
		20 x 20	125	39	21	TGP20L-3
		Use with TGP...3,0... inserts *Verwendung mit TGP...3,0... Wendeplatten* *Utilisation avec les plaquettes TGP...3,0...*				

TGPxxR-3IK	Right tool-holder, with internal coolant Werkzeughalter rechts, mit Innenkühlung Porte-outil à droite, avec arrosage intégré	Section C Querschnitt C Section C	L	E	T_{max}	K_1	K_3	Article nr. Artikel Nr. N° Article
	Use with hydraulic connector G1/8" (not included) *Verwendung mit Hydraulikanschluss G1/8" (nicht enthalten)* *Utilisation avec raccord hydraulique G1/8" (non inclus)*	12 x 12	125	29	13	40	—	TGP12R-3IK
		16 x 16	125	36	21	40	73	TGP16R-3IK
		20 x 20	125	40	21	44	73	TGP20R-3IK
		Use with TGP...3,0... inserts *Verwendung mit TGP...3,0... Wendeplatten* *Utilisation avec les plaquettes TGP...3,0...*						

TGPxxL-3IK	Left tool-holder, with internal coolant Werkzeughalter links, mit Innenkühlung Porte-outil à gauche, avec arrosage intégré	Section C Querschnitt C Section C	L	E	T_{max}	K_1	K_2	K_3	Article nr. Artikel Nr. N° Article
	Use with hydraulic connector G1/8" (not included) *Verwendung mit Hydraulikanschluss G1/8" (nicht enthalten)* *Utilisation avec raccord hydraulique G1/8" (non inclus)*	12 x 12	125	29	13	40	55	—	TGP12L-3IK
		16 x 16	125	36	21	40	55	73	TGP16L-3IK
		20 x 20	125	40	21	44,5	60	73	TGP20L-3IK
		Use with TGP...3,0... inserts *Verwendung mit TGP...3,0... Wendeplatten* *Utilisation avec les plaquettes TGP...3,0...*							

☞ Screw and key included

☞ Inklusive Schraube und Schlüssel

☞ Vis et clé incluses

Cut off and grooving
Abstechen und Einstechen
Tronçonnage et fonçage

N : Neutral machining
N : Bearbeitung neutral
N : Usinage neutre

TGP50N – r	Cutting and grooving insert 0° with radius Abstech- und Einstechplatte 0° mit Radien Plaquette de tronçonnage et fonçage 0° avec rayons	e	r	Article nr. Artikel Nr. N° Article	QM4
		2,0	0,2	TGP50N2,0 – r 0,2 –	✓
		3,0	0,2	TGP50N3,0 – r 0,2 –	✓

Cut off
Abstechen
Tronçonnage

R : Right machining
R : Bearbeitung rechts
R : Usinage à droite

TGP50R – r	Cutting insert 6° with radius Abstechplatte 6° mit Radien Tronçonneur 6° avec rayons	e	r	Article nr. Artikel Nr. N° Article	QM4
		2,0	0,15	TGP50R2,0 – r 0,15 –	✓
		3,0	0,2	TGP50R3,0 – r 0,2 –	✓

Grooving and back turning
Einstechen und Drehen hinter dem Bund
Fonçage et tournage arrière

N : Neutral machining
N : Bearbeitung neutral
N : Usinage neutre

TGP60N – r	Grooving and back turning insert 0° with radius Einstech- und Drehplatte hinten 0° mit Radien Plaquette de fonçage et de tournage arrière 0° avec rayons	e	r	Article nr. Artikel Nr. N° Article	QM4
		2,0	0,2	TGP60N2,0 – r 0,2 –	✓
		3,0	0,3	TGP60N3,0 – r 0,3 –	✓

100-1	Replacement key Ersatzschlüssel Clé de remplacement	Article nr. Artikel Nr. N° Article
	Torx 15	100-1

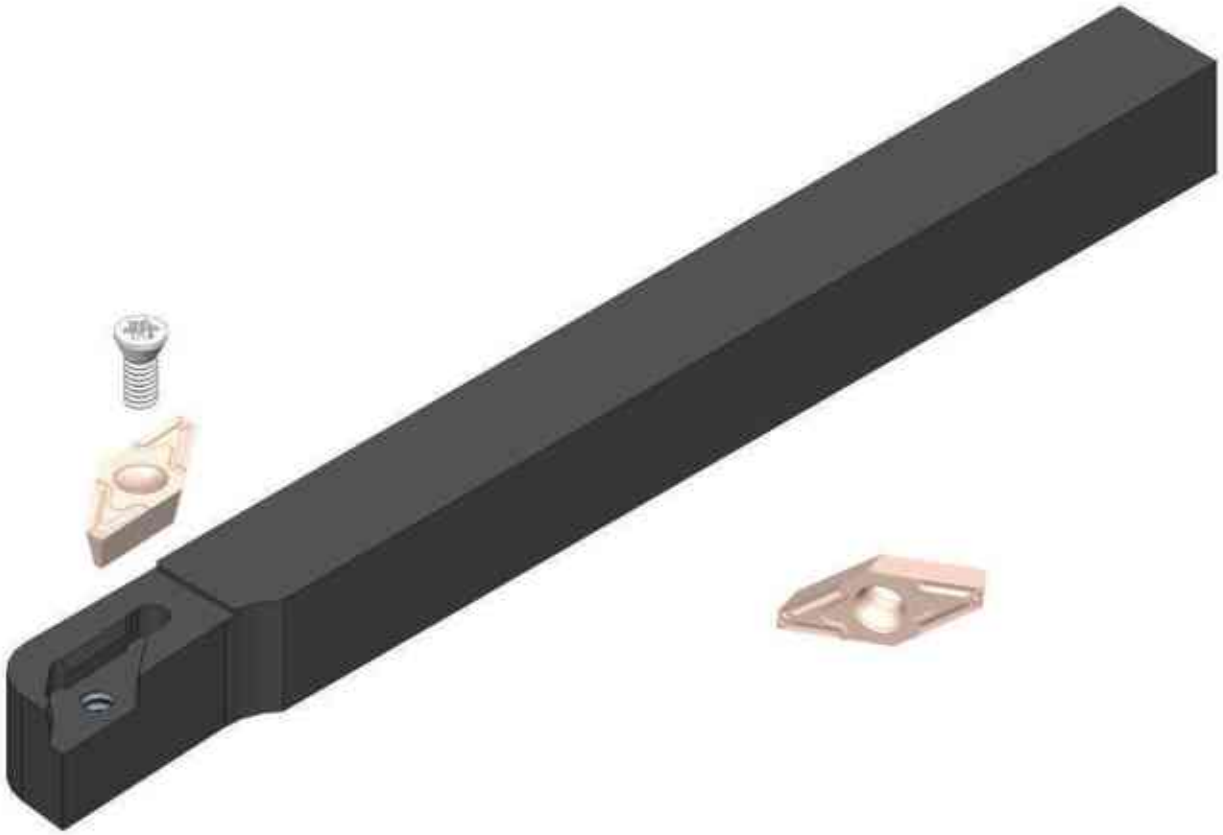
100-9	Standard replacement key Standard Ersatzschlüssel Clé standard de remplacement	Article nr. Artikel Nr. N° Article
	Torx 20	100-9

100-19	Replacement screw Ersatzschraube Vis de remplacement	Article nr. Artikel Nr. N° Article
	Torx 20 | M4,0 x 18,0	100-19
	Suitable for tool-holder: Passend für Werkzeughalter: Convient aux porte-outils: TGP20L-3, TGP20R-3	

100-22	Replacement screw Ersatzschraube Vis de remplacement	Article nr. Artikel Nr. N° Article
	Torx 15 | M4,0 x 14,0	100-22
	Suitable for tool-holder: Passend für Werkzeughalter: Convient aux porte-outils: TGP12L-2, TGP12R-2 TGP12L-2, TGP16R-2 TGP16L-3, TGP16R-3 TGP16L-2IK, TGP16R-2IK TGP16L-3IK, TGP16R-3IK	

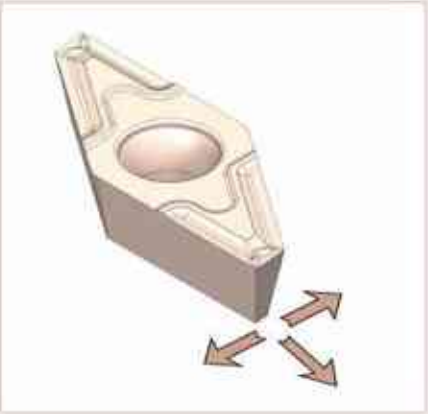
100-23	Replacement screw Ersatzschraube Vis de remplacement	Article nr. Artikel Nr. N° Article
	Hexagonal 4 mm | M5,0 x 20,0 Sechskantig 4 mm | M5,0 x 20,0 Six pans 4 mm | M5,0 x 20,0	100-23
	Suitable for tool-holder: Passend für Werkzeughalter: Convient aux porte-outils: TGP20L-3IK, TGP20R-3IK	

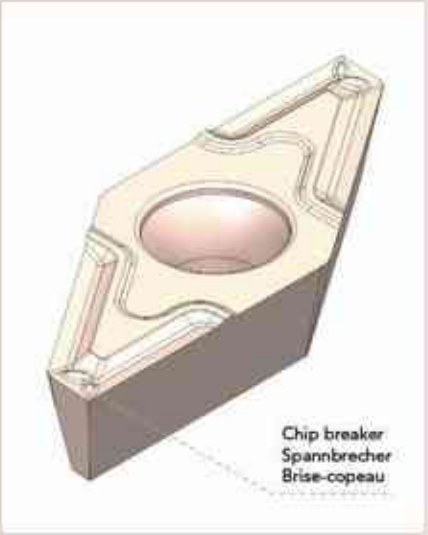
Multiturn-Dec VPGT



Multiturn-Dec – VPGT

Presentation of Multiturn-Dec – VPGT
Vorstellung der Multiturn-Dec – VPGT
Présentation du Multiturn-Dec – VPGT





Advantages of Multiturn-Dec – VPGT

- General use for free turning, plungingturn and finishing.
- Ideal for deep removal of material.
- The insert has the same positive cutting angle in all turn direction.
- Cut control thanks to the chip breaker.

Vorteile der Multiturn-Dec – VPGT

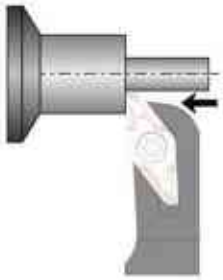
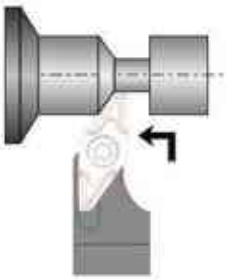
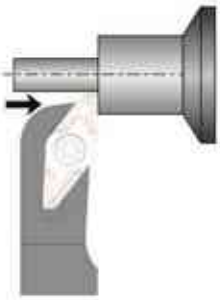
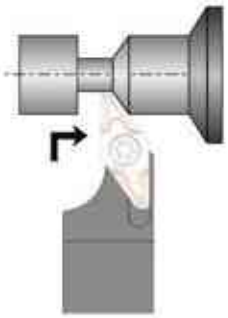
- Generell anwendbar für das Längs-/Plandrehen und zum Schlichten.
- Ideal für große Materialabnahme.
- Die Wendeplatte hat in jeder Drehrichtung den gleichen positiven Spanwinkel.
- Gute Spankontrolle durch die Spanbruchgeometrie.

Avantages de la ligne Multiturn-Dec – VPGT

- Utilisation générale pour tournage, fonçage et finition.
- Idéal pour les grands enlèvements de matières.
- La plaquette a, dans toutes les directions, un angle de coupe positif tranchant.
- Maîtrise de la coupe grâce au brise-copeau.

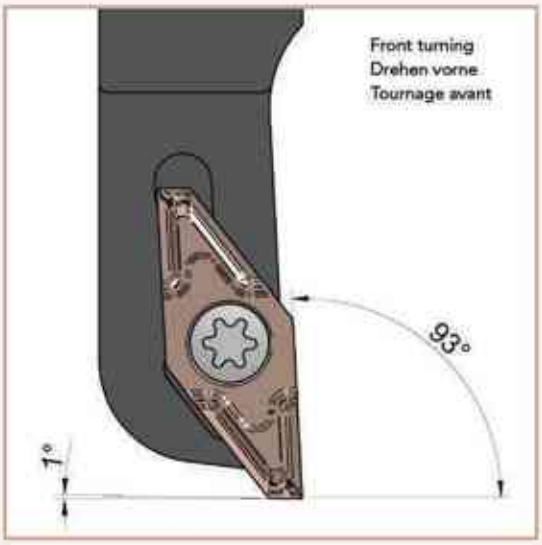
Multiturn-Dec – VPGT

Field of application of Multiturn-Dec – VPGT
Anwendungsbereiche von Multiturn-Dec – VPGT
Champ d'application du Multiturn-Dec – VPGT

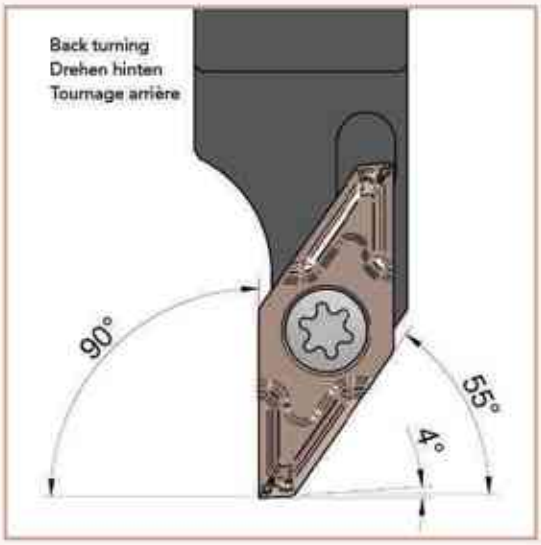
	Front turning Drehen vorne Tournage avant	Back turning Drehen hinten Tournage arrière
Right machining Rechte Bearbeitung Usinage à droite	 Tool holders SVJP R... Inserts R Werkzeughalter SVJP R... Wendeplatten R Porte-outil SVJP R... Plaquettes R	 Tool holders SVXP R... Inserts L Werkzeughalter SVXP R... Wendeplatten L Porte-outil SVXP R... Plaquettes L
Left machining Linke Bearbeitung Usinage à gauche	 Tool holders SVJP L... Inserts L Werkzeughalter SVJP L... Wendeplatten L Porte-outil SVJP L... Plaquettes L	 Tool holders SVXP L... Inserts R Werkzeughalter SVXP L... Wendeplatten R Porte-outil SVXP L... Plaquettes R

Multiturn-Dec – VPGT

Cutting angles
Schneidwinkel
Angles de coupe



SVJP



SVXP

Coating of inserts
Beschichtung der Wendeplatten
Revêtement des plaquettes

✓ = Available
✓ = Verfügbar
✓ = Disponible

Designation Bezeichnung Désignation	Description Beschreibung Description
K18	**Without coating | K18 carbide** **Ohne Beschichtung | K18 Hartmetall** **Sans revêtement | Carbure K18**
BI40	**AlTi(C)N-based** • Universal coating. • High hardness. • Very smooth surface finish. • Suitable for steel and stainless steel. **AlTi(C)N-Basis** • Universalbeschichtung. • Hohe Schichthärte. • Sehr glatte Oberfläche. • Geeignet für Stahl und Edelstahl. **Base AlTi(C)N** • Revêtement universel. • Dureté élevée. • Bon glissement du copeau. • Adapté à l'acier et à l'acier inox.
BI90	**AlTiN-based** • Universal coating. • Good oxidation resistance. • High heat resistance. • Suitable for steel and stainless steel. **AlTiN-Basis** • Universalbeschichtung. • Gute Oxidationsbeständigkeit. • Hohe Hitzebeständigkeit. • Ideal für Stahl und Edelstahl. **BaseAlTiN** • Revêtement universel. • Bonne résistance à l'oxydation. • Haute résistance à la chaleur. • Adapté à l'acier et à l'acier inox.

Multiturn-Dec – VPGT

Designation Bezeichnung Désignation	Description Beschreibung Description
BI100	**AlCrN-based** • Very high heat resistance. • High wear resistance. • Ideal for high speed machining of stainless steel. **AlCrN-Basis** • Sehr hohe Hitzebeständigkeit. • Hohe Verschleissfestigkeit. • Ideal für das Bearbeiten von Edelstahl mit hoher Schnittgeschwindigkeit. **Base AlCrN** • Très haute résistance à la chaleur. • Haute résistance à l'usure. • Idéal pour l'usinage à haute vitesse de coupe de l'acier inox.
BI110	**AlTiCrN-based** • Very smooth surface finish. • High heat resistance. • High wear resistance. • Especially suitable for machining pure copper, CuBe, CoCr and aluminium. **AlTiCrN-Basis** • Sehr glatte Oberflächengüte. • Hohe Hitzebeständigkeit. • Hohe Verschleissfestigkeit. • Besonders geeignet für die Bearbeitung von reinem Kupfer, CuBe, CoCr und Aluminium. **Base AlTiCrN** • Très bon glissement du copeau. • Haute résistance à la chaleur. • Haute résistance à l'usure. • Particulièrement adapté à l'usinage du cuivre pur, du CuBe, du CoCr et de l'aluminium.

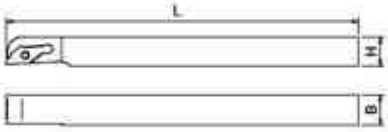
Multiturn-Dec – VPGT

Front turning
Drehen vor dem Bund
Tournage avant

R / L : Right / Left machining
R / L : Rechte / Linke Bearbeitung
R / L : Usinage à droite / gauche

SVJP R ...

Right tool holder
Werkzeughalter rechts
Porte-outil à droite

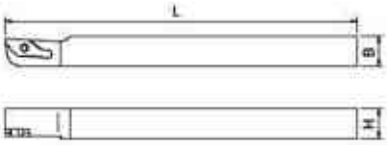


B	H	L	Article nr. Artikel Nr. N° Article
8	8	124	SVJP R 0808 K10
10	10	124	SVJP R 1010 K10
12	12	124	SVJP R 1212 K10
16	16	124	SVJP R 1616 K10
20	20	100	SVJP R 2020 H10

for inserts R *für Wendeplatten R* *pour plaquettes R*

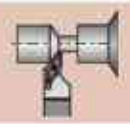
SVJP L ...

Left tool holder
Werkzeughalter links
Porte-outil à gauche



B	H	L	Article nr. Artikel Nr. N° Article
8	6	124	SVJP L 0806 K10
8	7	124	SVJP L 0807 K10
8	8	124	SVJP L 0808 K10
10	8	124	SVJP L 1008 K10
10	10	124	SVJP L 1010 K10
12	12	124	SVJP L 1212 K10
16	16	124	SVJP L 1616 K10

for inserts L *für Wendeplatten L* *pour plaquettes L*



Back turning
Drehen hinter dem Bund
Tournage arrière

R / L : Right / Left machining
R / L : Rechte / Linke Bearbeitung
R / L : Usinage à droite / gauche

SVXP R ...

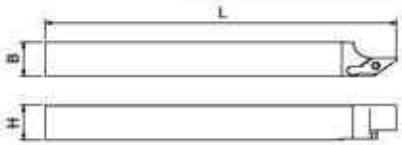
Right tool holder
Werkzeughalter rechts
Porte-outil à droite

B	H	L	Article nr. Artikel Nr. N° Article
12	12	120	SVXP R 1212 M10
10	10	120	SVXP R 1010 M10
16	16	120	SVXP R 1616 M10

for inserts L *für Wendeplatten L* *pour plaquettes L*

SVXP L ...

Left tool holder
Werkzeughalter links
Porte-outil à gauche



B	H	L	Article nr. Artikel Nr. N° Article
12	12	120	SVXP L 1212 M10

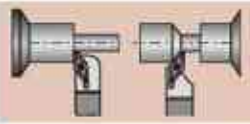
for inserts R *für Wendeplatten R* *pour plaquettes R*

Multiturn-Dec – VPGT

	Turning tool holders for counter-operation Drehwerkzeughalter für Rückseitenbearbeitung Porte-outils de tournage pour contre-opération
	See the «Cylindrical turning tool holders» documentation for further information. *Siehe die «Zylindrische Drehwerkzeughalter» Dokumentation für weitere Informationen.* *Voir la documentation «Porte-outils de tournage cylindriques» pour plus d'informations.*

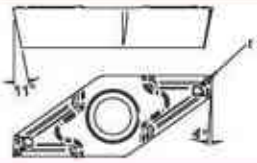
001-1	Key Schlüssel Clé	Article nr. Artikel Nr. N° Article
	Torx 8	001-1

001-7	Screw for tool holder SVJP / SVXP Schraube für Werkzeughalter SVJP / SVXP Vis pour porte-outil SVJP / SVXP	Article nr. Artikel Nr. N° Article
	M2,5 x 7,5	001-7

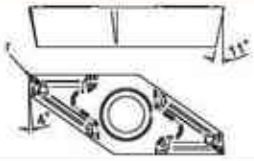


Front / back turning
Drehen vor / hinter dem Bund
Tournage avant / arrière

R / L : Right / Left machining
R / L : Rechte / Linke Bearbeitung
R / L : Usinage à droite / gauche

VPGT...FR	Right VPGT insert VPGT Wendeplatte rechts Plaquette VPGT à droite	r	Article nr. Artikel Nr. N° Article	K18	BI40	BI90	BI100	BI110
		0	VPGT 10 03 ZZ FR FW	✓	✓	✓	✓	✓
		0,08	VPGT 10 03 008 FR FW	✓	✓	✓	✓	✓
		0,2	VPGT 10 03 02 FR FW	✓	✓	✓	✓	✓

Use with SVJP R and SVXP L tool holders
Verwendung mit SVJP R und SVXP L Werkzeughalter
Utilisation avec les porte-outils SVJP R et SVXP L

VPGT...FL	Left VPGT insert VPGT Wendeplatte links Plaquette VPGT à gauche	r	Article nr. Artikel Nr. N° Article	K18	BI40	BI90	BI100	BI100
		0	VPGT 10 03 ZZ FL FW	✓	✓	✓	✓	✓
		0,08	VPGT 10 03 008 FL FW	✓	✓	✓	✓	✓
		0,2	VPGT 10 03 02 FL FW	✓	✓	✓	✓	✓

Use with SVJP L and SVXP R tool holders
Verwendung mit SVJP L und SVXP R Werkzeughalter
Utilisation avec les porte-outils SVJP L et SVXP R

Cylindrical turning tool holders
Zylindrische Drehwerkzeughalter
Porte-outils cylindriques de tournage

Replace a drilling tool with a turning tool.

- Use in main operation or counter-operation.
- Different diameters of cylindrical tool holders available.
- Available for all common ISO and Bimu inserts.

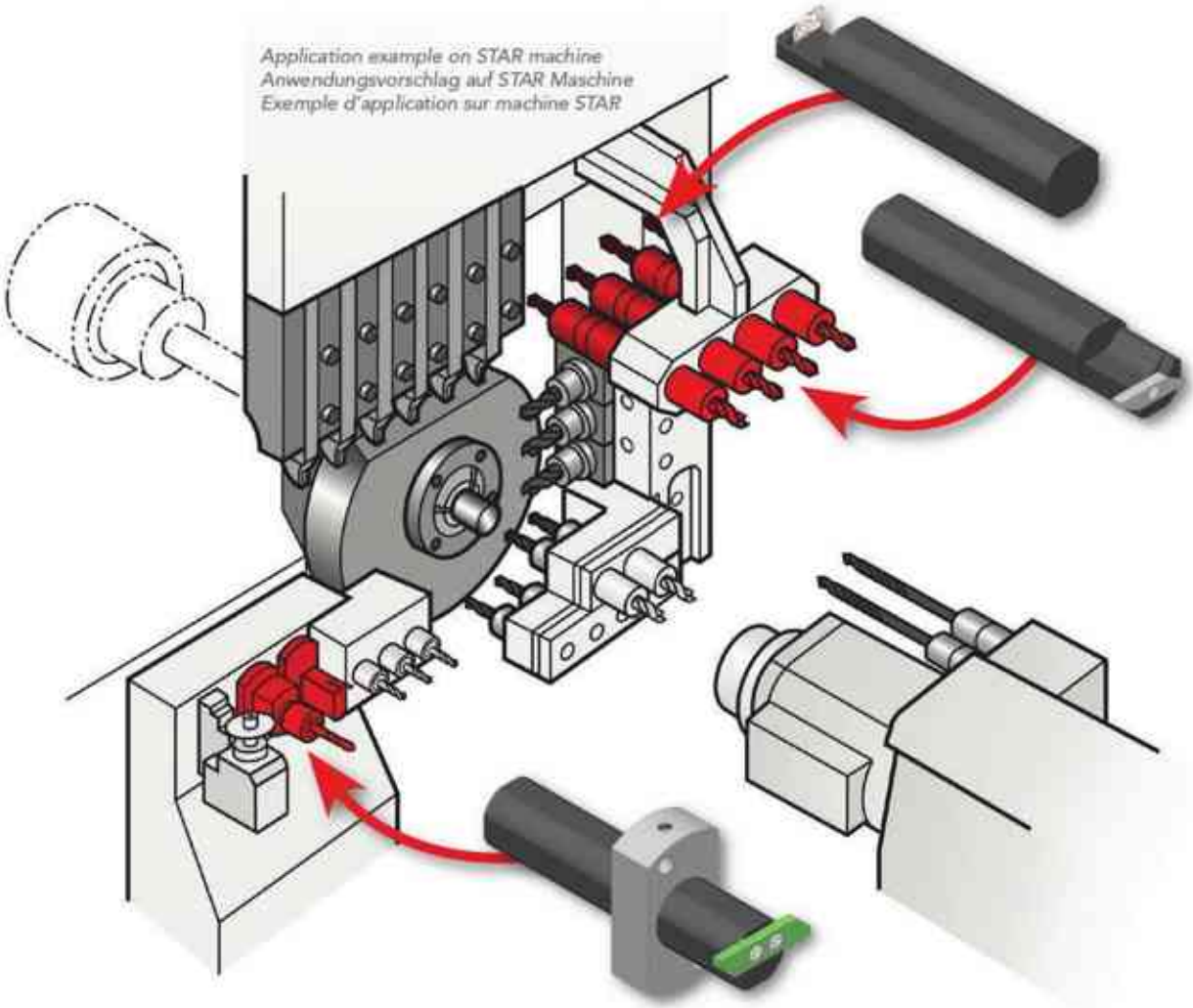
Ersetzen Sie ein Bohrwerkzeug durch ein Drehwerkzeug.

- Verwendung für die Haupt- und Rückseite.
- Erhältlich in verschiedenen Durchmessern.
- Für alle gängigen ISO- und Bimu Wendeplatten verfügbar.

Possibilité de remplacer un outil de perçage par un outil de tournage.

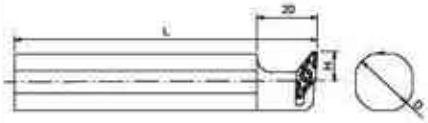
- Utilisation en opération principale ou en contre-opération.
- Différents diamètres de porte-outils cylindriques disponibles.
- Disponibles pour toutes les plaquettes ISO et Bimu usuelles.

Ø 16 mm
Ø 20 mm
Ø 22 mm
Ø 25 mm
Ø 3/4"
Ø 1"



AL VPGT

Left turning tool holder for counter-operation
Linke Dreh-Werkzeughalter für Rückbearbeitung
Porte-outil de tournage à gauche pour contre-op.

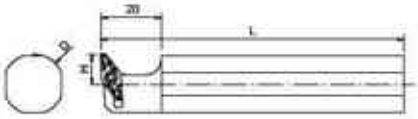


D	L	H	Article nr. Artikel Nr. N° Article
16	80	8,00	AL 1680 VPGT
20	100	10,00	AL 20100 VPGT
22	100	11,00	AL 22100 VPGT
25	100	12,50	AL 25100 VPGT
3/4"	100	9,53	AL 34100 VPGT
5/8"	50	7,94	AL 5850 VPGT

For use with VPGT...FL inserts
Verwendung mit VPGT...FL Wendeplatten
Utilisation avec plaquettes VPGT...FL

AL VPGT-R

Right turning tool holder for counter-operation
Rechte Dreh-Werkzeughalter für Rückbearbeitung
Porte-outil de tournage à droite pour contre-op.



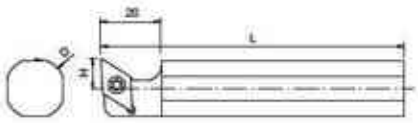
D	L	H	Article nr. Artikel Nr. N° Article
16	100	8,00	AL 16100 VPGT-R
20	100	10,00	AL 20100 VPGT-R
22	100	11,00	AL 22100 VPGT-R
25	100	12,50	AL 25100 VPGT-R IK*

* With internal coolant
* Mit Innenkühlung
* Avec arrosage intégré

For use with VPGT...FR inserts
Verwendung mit VPGT...FR Wendeplatten
Utilisation avec plaquettes VPGT...FR

AL DCGT-R

Right turning tool holder for counter-operation
Rechte Dreh-Werkzeughalter für Rückbearbeitung
Porte-outil de tournage à droite pour contre-op.

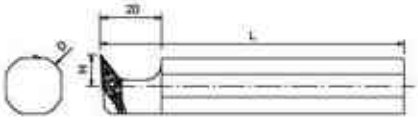


D	L	H	Article nr. Artikel Nr. N° Article
20	100	10,00	AL 20100 DCGT-R
22	100	11,00	AL 22100 DCGT-R
3/4"	100	9,53	AL 34100 DCGT-R

For use with ISO-line DCGT 11 inserts
Verwendung mit ISO-line DCGT 11 Wendeplatten
Utilisation avec plaquettes ISO-line DCGT 11

AL VCGT-R

Right turning tool holder for counter-operation
Rechte Dreh-Werkzeughalter für Rückbearbeitung
Porte-outil de tournage à droite pour contre-op.

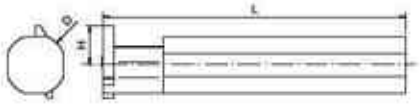


D	L	H	Article nr. Artikel Nr. N° Article
20	100	10,00	AL 20100 VCGT-R
22	100	11,00	AL 22100 VCGT-R
25	150	12,50	AL 25150 VCGT-R
3/4"	100	9,53	AL 34100 VCGT-R

For use with ISO-line VCGT 11 inserts
Verwendung mit ISO-line VCGT 11 Wendeplatten
Utilisation avec plaquettes ISO-line VCGT 11

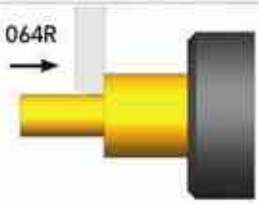
AL 040-R

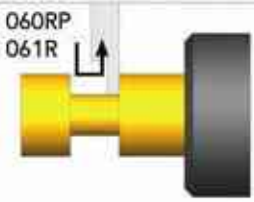
Right turning tool holder for counter-operation
Rechte Dreh-Werkzeughalter für Rückbearbeitung
Porte-outil de tournage à droite pour contre-op.

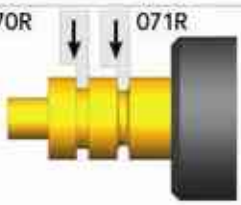


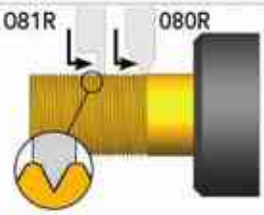
D	L	H	Article nr. Artikel Nr. N° Article
20	100	13,00	AL 20100 040-R
20	150	13,00	AL 20150 040-R
22	100	13,00	AL 22100 040-R
3/4"	100	13,00	AL 34100 040-R
1"	100	13,00	AL 254100 040-R

For use with 040line R inserts. Examples of application below.
Verwendung mit 040line R Wendeplatten. Anwendungsbeispiele unten.
Utilisation avec plaquettes 040line R. Exemples d'application ci-dessous.



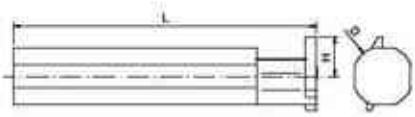






AL 040-L

Left turning tool holder for counter-operation
Linke Dreh-Werkzeughalter für Rückbearbeitung
Porte-outil de tournage à gauche pour contre-op.



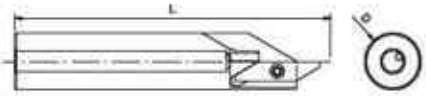
D	L	H	Article nr. Artikel Nr. N° Article
16	80	13,00	AL 1680 040-L IK*
20	100	13,00	AL 20100 040-L

* With internal coolant
* Mit Innenkühlung
* Avec arrosage intégré

For use with 040line L inserts.
Verwendung mit 040line L Wendeplatten.
Utilisation avec plaquettes 040line L.

AL 040-LF

Left turning tool holder for counter-operation
Linke Dreh-Werkzeughalter für Rückbearbeitung
Porte-outil de tournage à gauche pour contre-op.



D	L	H	Article nr. Artikel Nr. N° Article
16	80	—	AL 1680 040-LF IK*

* With internal coolant
* Mit Innenkühlung
* Avec arrosage intégré

For use with 040line L inserts.
Verwendung mit 040line L Wendeplatten.
Utilisation avec plaquettes 040line L.

AL OXO-R

Right turning tool holder for counter-operation
Rechte Dreh-Werkzeughalter für Rückbearbeitung
Porte-outil de tournage à droite pour contre-op.

D	L	H	Article nr. Artikel Nr. N° Article
20	150	18,00	AL 20150 OXO-R
22	100	18,00	AL 22100 OXO-R
3/4"	100	18,00	AL 34100 OXO-R
1"	100	18,00	AL 254100 OXO-R

For use with OXOline R inserts.
Verwendung mit OXOline R Wendeplatten.
Utilisation avec plaquettes OXOline R.

AL 472-R

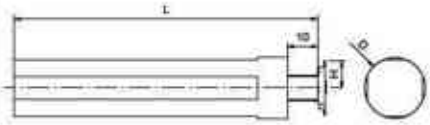
Right turning tool holder for counter-operation
Rechte Dreh-Werkzeughalter für Rückbearbeitung
Porte-outil de tournage à droite pour contre-op.

D	L	H	Article nr. Artikel Nr. N° Article
16	80	—	AL 1680 472-R
20	100	—	AL 20100 472-R
5/8"	80	—	AL 5880 472-R
3/4"	100	—	AL 34100 472-R

For use with 400line inserts.
Verwendung mit 400line Wendeplatten.
Utilisation avec plaquettes 400line.

4xx H6

Right turning tool holder for counter-operation
Rechte Dreh-Werkzeughalter für Rückbearbeitung
Porte-outil de tournage à droite pour contre-op.



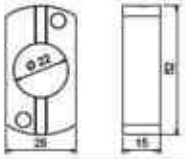
D	L	H	Article nr. Artikel Nr. N° Article
12	80	9,00	412 H6
16	80	9,00	416 H6
20	100	9,00	420 H6

For use with 400line inserts.
Verwendung mit 400line Wendeplatten.
Utilisation avec plaquettes 400line.

STAR-KP

Clamping plate for Star machines
Klemmplatte für Star Maschinen
Plaque de serrage pour machines Star

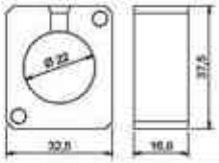
Article nr.
Artikel Nr.
N° Article



STAR-KP1-22SRR

For use with machines:
Für verwendung mit Maschinen:
Utilisation avec machines:

STAR SB-16C/E, SB-20 C/E, SB20R E/G/N, SR10J (T22+T24), SR-20J, SR-20JN, SR-32J, SR-32JN, SR20RII, SR-20RIII, SR20RIV (T21+T24), SW12RII

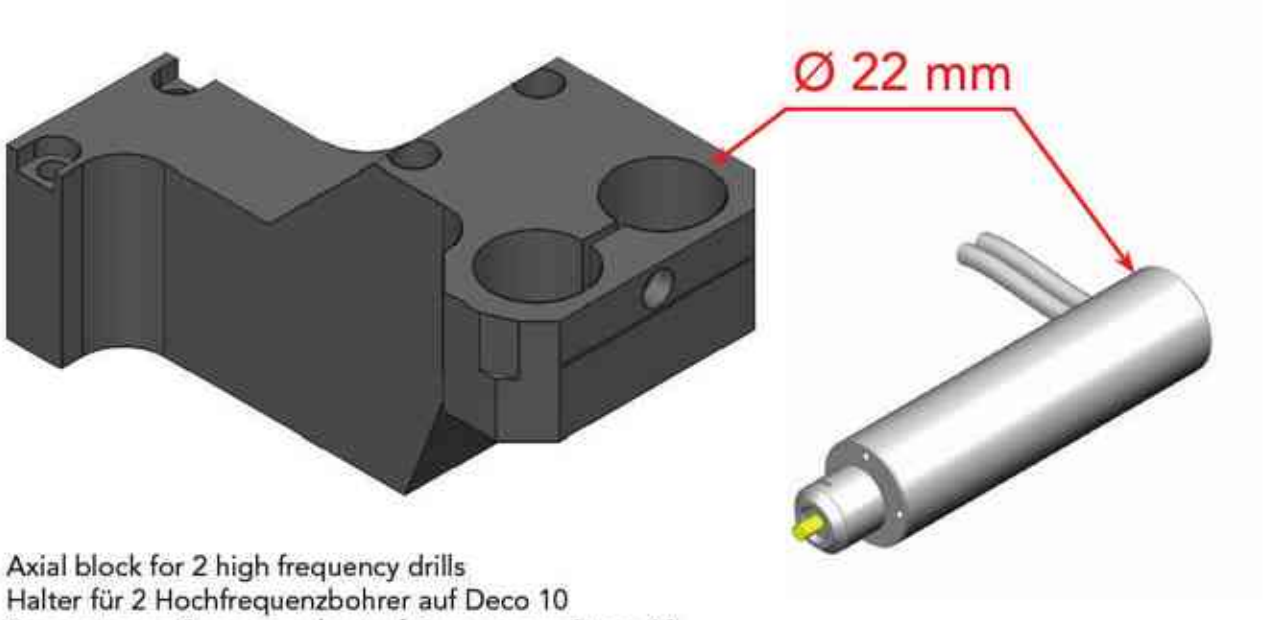


STAR-KP1-22SW

For use with machines:
Für verwendung mit Maschinen:
Utilisation avec machines:

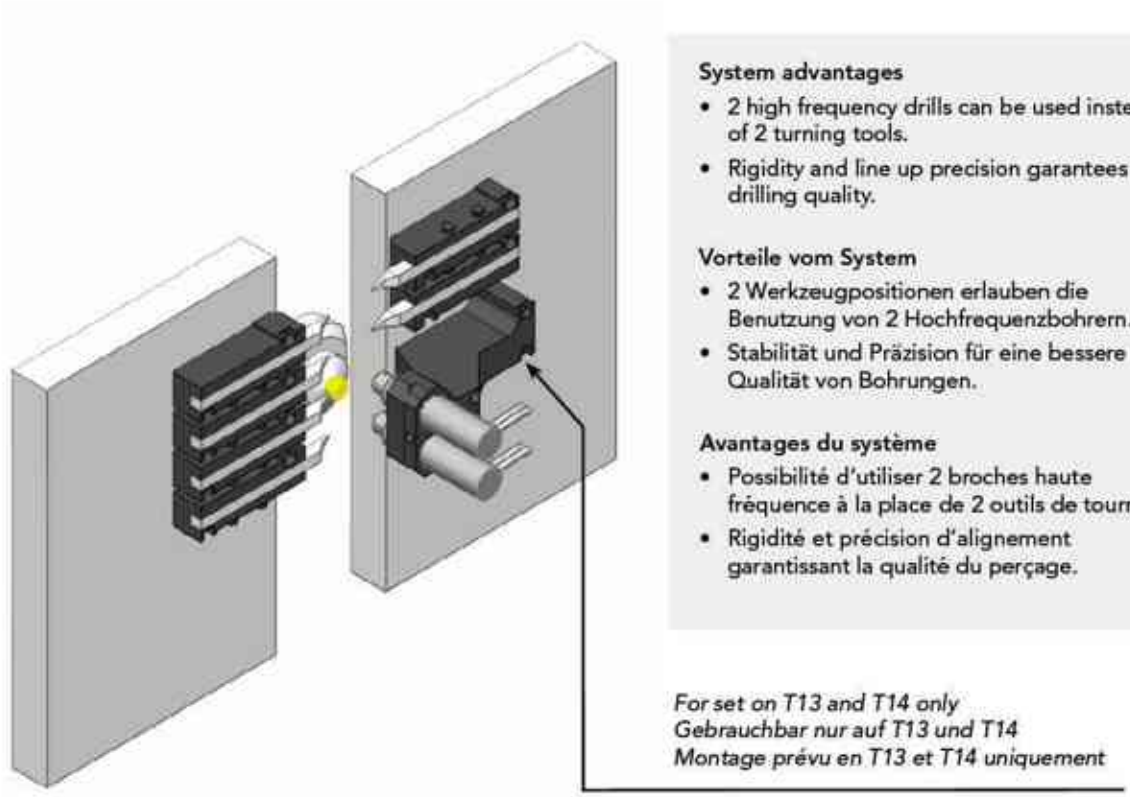
STAR SB12/20R, SR-20RIV, SR38, SV20R, SW-12, SW12RII, SW 20

Axial block for the use of 2 high frequency drills on Deco 10
Halter für 2 Hochfrequenzbohrer auf Deco 10
Support pour 2 perceurs haute fréquence sur Deco 10



Axial block for 2 high frequency drills
Halter für 2 Hochfrequenzbohrer auf Deco 10
Support pour 2 perceurs haute fréquence sur Deco 10

015.11.2000.22



System advantages

- 2 high frequency drills can be used instead of 2 turning tools.
- Rigidity and line up precision garantees the drilling quality.

Vorteile vom System

- 2 Werkzeugpositionen erlauben die Benutzung von 2 Hochfrequenzbohrern.
- Stabilität und Präzision für eine bessere Qualität von Bohrungen.

Avantages du système

- Possibilité d'utiliser 2 broches haute fréquence à la place de 2 outils de tournage.
- Rigidité et précision d'alignement garantissant la qualité du perçage.

For set on T13 and T14 only
Gebrauchbar nur auf T13 und T14
Montage prévu en T13 et T14 uniquement

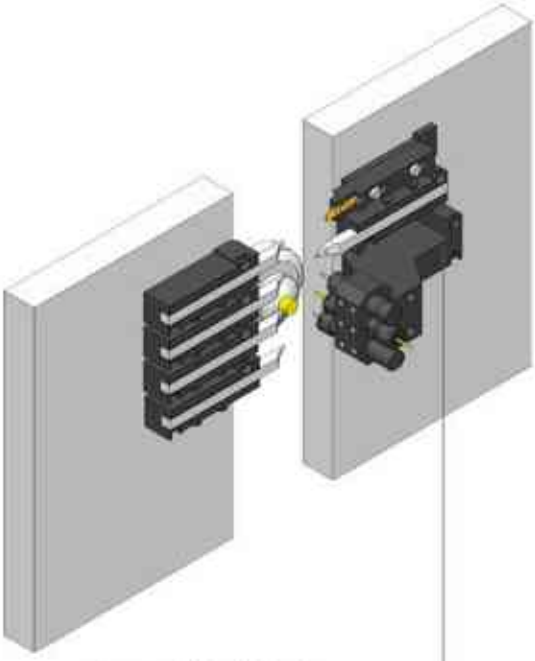
Axial block for the use of 3 drills on Deco 10
Halter für die Verwendung von 3 Bohrer auf Deco 10
Support pour l'utilisation de 3 perceurs sur Deco 10

Axial block for 3 drill holders
Halter für 3 Bohrerhalter
Support pour 3 porte-perceurs
015.11.2000.1

Standard drill holder (ER11)
Standard Bohrerhalter (ER11)
Porte-perceur standard (ER11)
EM 11 16 55

Double drill holder (2x ER11)
Doppelbohrerhalter (2x ER11)
Porte-perceur double (2x ER11)
ED 11 16 32

Precision drill holder (B8)
Präzisionsbohrerhalter (B8)
Porte-perceur de précision (B8)
B8 16 60



For set on T13 and T14 only
Einsetzbar nur auf T13 und T14
Montage prévu en T13 et T14 uniquement

System advantages

- Rigidity and line up precision garantees the drilling quality.
- Increase of the number of tools :
  2 positions on gang allow the set up of 3 drilling positions.
- Operations possible in main operation thanks to counter spindle.

Vorteile vom System

- Stabilität und Präzision für eine bessere Qualität von Bohrungen.
- Erhöhung der Kapazität :
  2 Werkzeugpositionen erlauben die Benutzung von 3 bzw. 6 Bohrern.
- Es ist möglich, mit der Gegenspindel in der Nebenzeit zu arbeiten.

Avantages du système

- Rigidité et précision d'alignement garantissant la qualité du perçage.
- Augmentation du nombre d'outils : 2 positions du peigne permettent le montage de 3 positions de perçage.
- Possibilité d'effectuer des opérations en opération principale à l'aide de la contre-broche.

Axial block for the use of 3 drills on Deco 10
Halter für die Verwendung von 3 Bohrer auf Deco 10
Support pour l'utilisation de 3 perceurs sur Deco 10

Axial block for 3 drill holders
Halter für 3 Bohrerhalter
Support pour 3 porte-perceurs
015.11.2000.1

Standard drill holder (ER11)
Standard Bohrerhalter (ER11)
Porte-perceur standard (ER11)
EM 11 16 55

Double drill holder (2x ER11)
Doppelbohrerhalter (2x ER11)
Porte-perceur double (2x ER11)
ED 11 16 32

Precision drill holder (B8)
Präzisionsbohrerhalter (B8)
Porte-perceur de précision (B8)
B8 16 60

Spacer 20 mm for axial block 015.11.2000.1
> *Allows to shift the axial block of 20 additional millimeters in relation to the reference of the guide bush (without spacer: 40 mm)*

Distanzstück 20 mm für Halter 015.11.2000.1
> *Erlaubt die Verschiebung des Halters um 20 zusätzliche Millimeter gegenüber der Führungsbüchse (ohne Distanzstück: 40 mm)*

Entretoise 20 mm pour support 015.11.2000.1
> *Permet de décaler le support de 20 millimètres supplémentaires par rapport à la ligne du canon (sans entretoise: 40 mm)*

015.11.2000.2

PACK "SINGLE"

1 x 015.11.2000.1
Axial block for 3 drill holders
Halter für 3 Bohrerhalter
Support pour 3 porte-perceurs

+

3 x EM 11 16 55
Standard drill holder (ER11)
Standard Bohrerhalter (ER11)
Porte-perceur standard (ER11)

PACK "DOUBLE"

1 x 015.11.2000.1
Axial block for 3 drill holders
Halter für 3 Bohrerhalter
Support pour 3 porte-perceurs

+

3 x ED 11 16 32
Double drill holder (2x ER11)
Doppelbohrerhalter (2x ER11)
Porte-perceur double (2x ER11)

PACK "PRECISION"

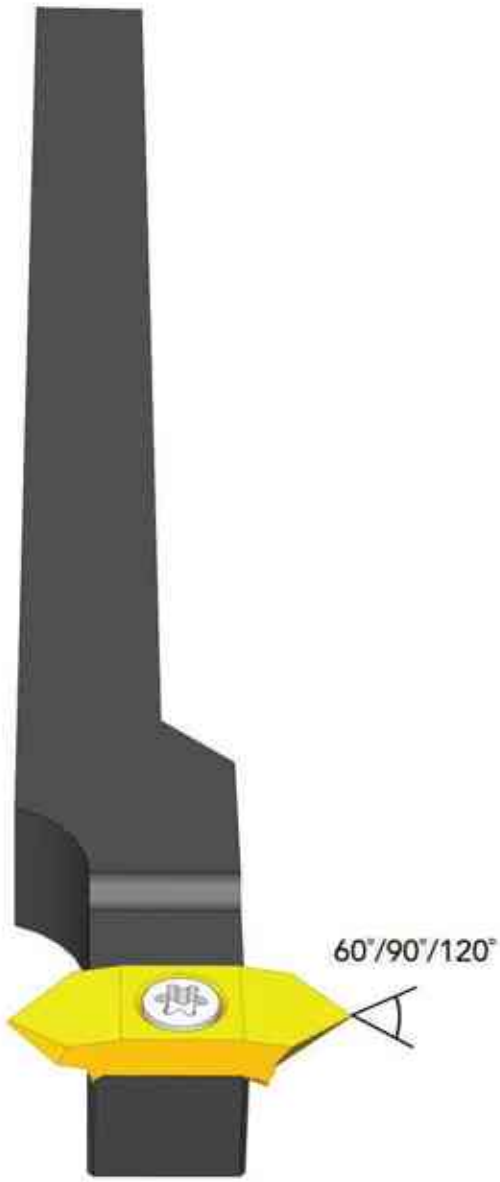
1 x 015.11.2000.1
Axial block for 3 drill holders
Halter für 3 Bohrerhalter
Support pour 3 porte-perceurs

+

3 x B8 16 60
Precision drill holder (B8)
Präzisionsbohrerhalter (B8)
Porte-perceur de précision (B8)

Bimu
cutting tools & accessories

Centering drill with insert
Wendeplatte für Zentrierbohrung
Centreur à plaquette



- A single tool holder and insert for all types of centering from Ø 1 to 5 mm
- 2 centering tips available
- 60° / 90° / 120° tips
- Very profitable price

- Nur ein Werkzeughalter und eine Wendeplatte für alle Typen von Zentrier-Bohrungen von Ø 1 bis 5 mm
- 2 verfügbare Zentrierspitzen
- 60° / 90° / 120° Spitze
- Sehr günstig

- Un seul porte-outil et une seule plaquette pour tous les types de centrage de Ø 1 à 5 mm
- 2 pointes de centrage disponibles
- Pointes à 60° / 90° / 120°
- Prix très avantageux

Bimu
cutting tools & accessories

Centering drill with insert
Wendeplatte für Zentrierbohrung
Centreur à plaquette

«X-Centering» fixing system

- Positioning in all axes.
- The screw is free of all radial stress.
- Insert turning without having to remove the screw.
- Two centering tips available.

Befestigungssystem «X-Centering»

- Platzierung in allen Achsen.
- Keine radialen Spannungen.
- Umdrehen der Schneidplatte ohne Entfernen der Schraube.
- Zwei verfügbare Zentrierspitzen.

Système de fixation «X-Centering»

- Centrage dans tous les axes.
- La vis est libre de toute tension radiale.
- Retournement de la plaquette sans enlever la vis.
- Deux arêtes de centrage disponibles.

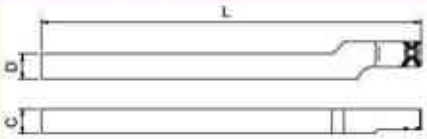
4xxxxR

Right machining tool holder
Rechter Bearbeitungswerkzeughalter
Porte-outil machine à droite

Section C x D Querschnitt C x D Section C x D	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
8 x 12	120	40812R
10 x 12	120	41012R
12 x 15	120	41215R
16 x 16	120	41616R

4xxxxLC

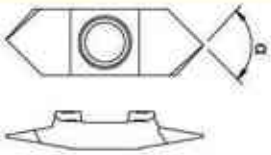
Left machining tool holder
Linker Bearbeitungswerkzeughalter
Porte-outil machine à gauche



Section C x D Querschnitt C x D Section C x D	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
7 x 7	120	40707LC
8 x 8	120	40808LC
12 x 12	120	41212LC

422R

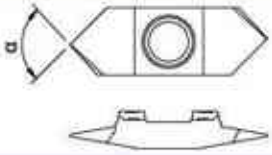
Right insert
Rechte Wendeplatte
Plaquette à droite



α	Article nr. Artikel Nr. N° Article	K10	B90
60°	422R - 60° -	✓	✓
90°	422R - 90° -	✓	✓
120°	422R - 120° -	✓	✓

422L

Left insert
Linke Wendeplatte
Plaquette à gauche



α	Article nr. Artikel Nr. N° Article	K10	B90
60°	422L - 60° -	✓	✓
90°	422L - 90° -	✓	✓
120°	422L - 120° -	✓	✓

001-3	Key Schlüssel Clé	Article nr. Artikel Nr. N° Article
	Torx 8	001-3

001-4	Screw for standard tool holder Schraube für Standard-Werkzeughalter Vis pour porte-outil standard	Article nr. Artikel Nr. N° Article
	M3,5 x 7,5	001-4

Coating of inserts
Beschichtung der Wendeplatten
Revêtement des plaquettes

✓ = Available
✓ = Verfügbar
✓ = Disponible

Designation Bezeichnung Désignation	Description Beschreibung Description
K10	**Without coating | K10 carbide** **Ohne Beschichtung | K10 Hartmetall** **Sans revêtement | Carbure K10**
BI90	**AlTiN-based** • Universal coating. • Good oxidation resistance. • High heat resistance. • Suitable for steel and stainless steel. **AlTiN-Basis** • Universalbeschichtung. • Gute Oxidationsbeständigkeit. • Hohe Hitzebeständigkeit. • Ideal für Stahl und Edelstahl. **BaseAlTiN** • Revêtement universel. • Bonne résistance à l'oxydation. • Haute résistance à la chaleur.. • Adapté à l'acier et à l'acier inox.

Turning toolholder for counter-operation with micrometric adjustment of the height

Precise adjustment of the height thanks to an eccentric screw as well as a graduation every 0.1 mm

Fitting with Bimu 040 / 400 inserts

for machines

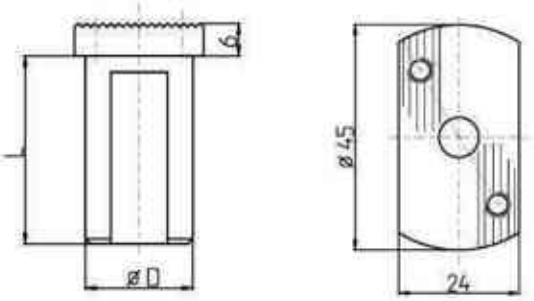
Citizen
Maier
Manhurin
Star
Tornos

Fitting with ISO inserts

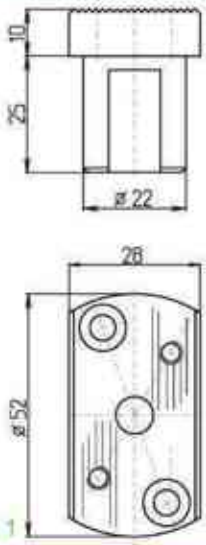
Vast choice of inserts

- ISO inserts for turning
- ISO + Bimu inserts for threading
- Bimu 040 + 400 line

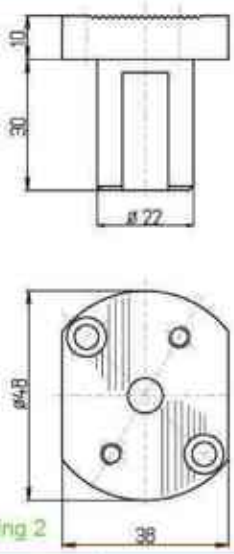
Shafts



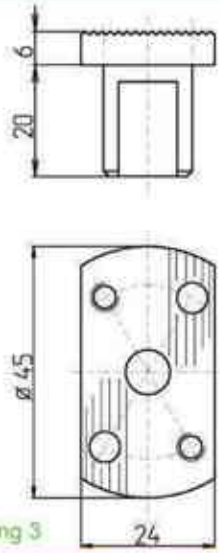
Reference	D	L	Machine
HVD1660	16	60	
HVD1960	¾"	60	Citizen L20/C16
HVD2060	20	60	Citizen B12
HVD2080	20	80	
HVD2012	20	125	Tornos DECO
HVD2270	22	70	STAR
HVD2560	25	60	
HVD2510	25	100	Manurhin Swing
HVD2512	25	125	Tornos DECO
HVD2670	1"	70	Citizen M/C32
HVD2885	28	85	Traub TNL 12/16
HVD2885IK	28	85	Traub TNL 12/16 with integrated coolant supply



Drawing 1



Drawing 2



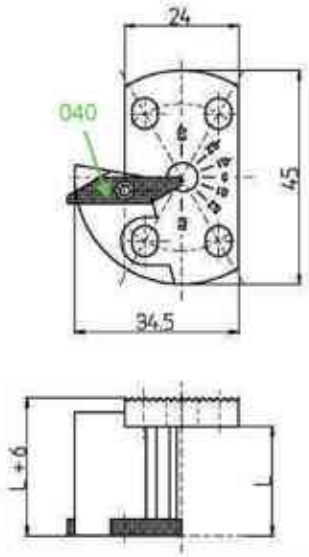
Drawing 3

Reference	D	L	Drawing	Machine
HVD2225	22	25	1	STAR SR20R ; ECAS12/20
HVD2230	22	30	2	SR32
HVD1620	16	20	3	SR16 SST16
HVD3419	34	19,5	-	Maier
HVD3444	34	44	-	Maier
HVD3444S	34	44	-	chaser STAR SR/SV
HVD3045	30	45	-	Maier

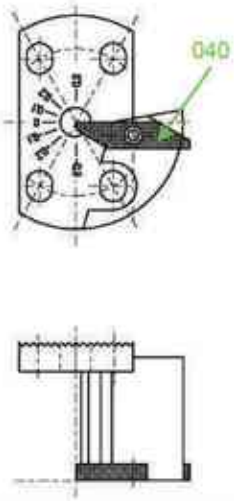
Heads

Bimu 040-400 toolholder

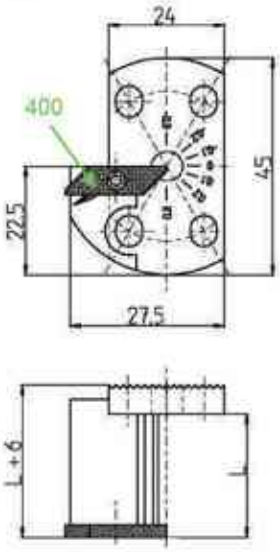
Drawing 1 - Left execution



Drawing 2 - Right execution

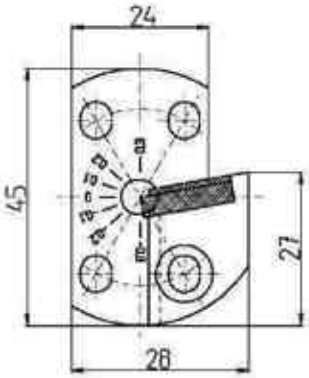


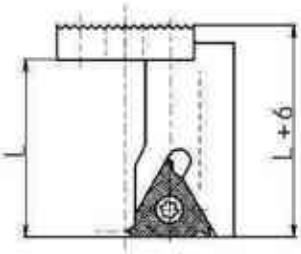
Drawing 3 - Left execution



Reference	Execution	Insert	L	Drawing
HVWP-BI040R	right	BIMU-040	23	2
HVWP-BI040L	left	BIMU-040	23	1
HVWP-BIX-R	right	BIMU-400	26	3
HVWP-BIX-L	left	BIMU-400	26	3
HVWPL-BIX-R	right	BIMU-400	43	3
HVWPL-BIX-L	left	BIMU-400	43	3

16ER threading toolholder



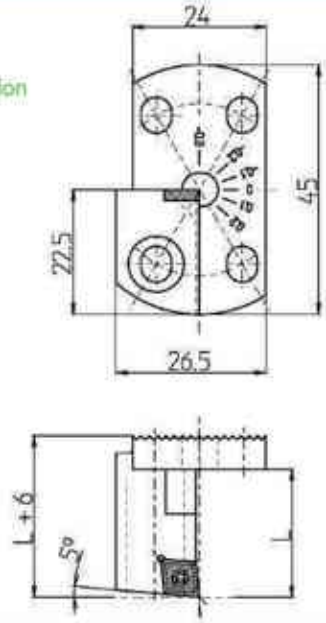


Reference	Execution	Helix angle	Insert	L
HVWP-16ER-0	right	0°	16ER ISO	31
HVWP-16ER-15	right	1,5°	16ER ISO	31
HVWP-16ER-3	right	3°	16ER ISO	31
HVWPL-16ER-15	right	1,5°	16ER ISO	40
HVWPL-16ER-3	right	3°	16ER ISO	40

ISO : CC... / DC... toolholder

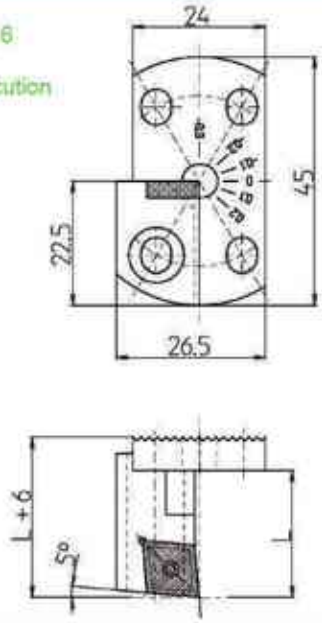
Drawing 5

Left execution



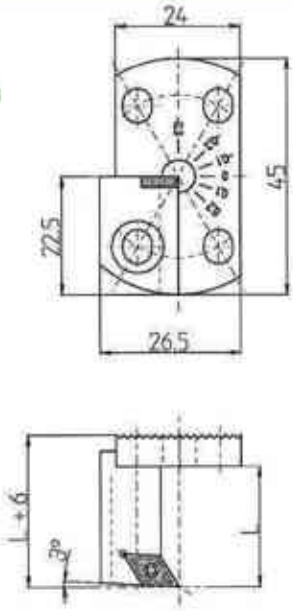
Drawing 6

Left execution



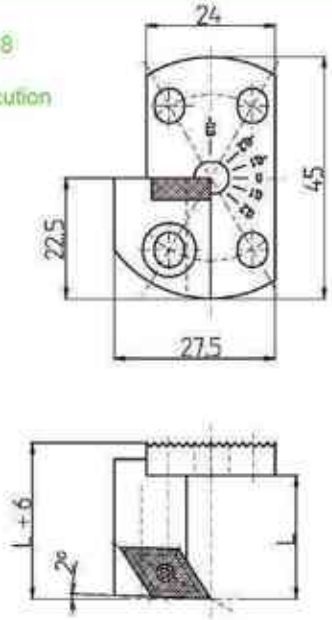
Drawing 7

Left execution



Drawing 8

Left execution

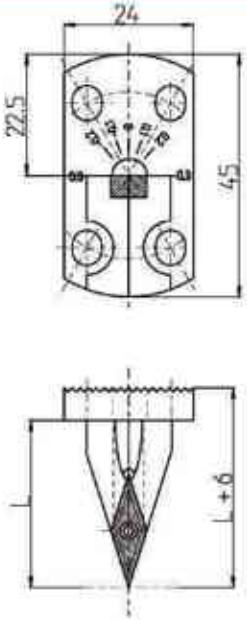


Reference	Execution	Insert	L	Drawing
HVWP-SCJCR06	right	CC--0602	23	5
HVWP-SCJCL06	left	CC--0602	23	5
HVWP-SCJCR09	right	CC--09T3	23	6
HVWP-SCJCL09	left	CC--09T3	23	6
HVWP-SDJCR07	right	DC--0702	23	7
HVWP-SDJCL07	left	DC--0702	23	7
HVWP-SDJCR11	right	DC--11T3	23	8
HVWP-SDJCL11	left	DC--11T3	23	8
HVWPL-SDJCR11	right	DC--11T3	40	8
HVWPL-SDJCL11	left	DC--11T3	40	8

ISO : VC... toolholder

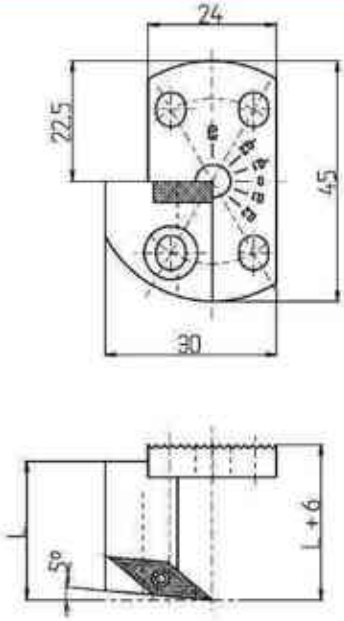
Drawing 9

Neutral execution

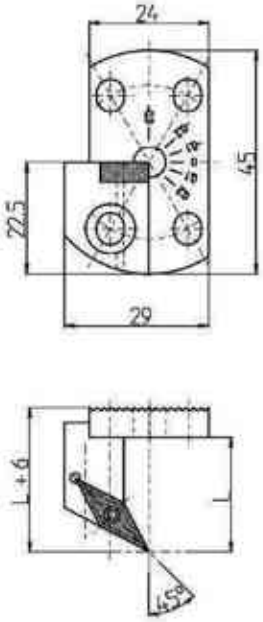


Drawing 10

Left execution

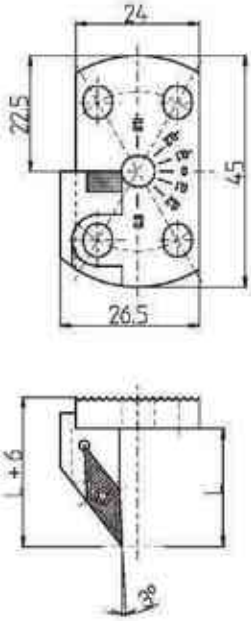


Drawing 11



Drawing 12

Left execution



Reference	Execution	Insert	L	Drawing
HVWP-SVVCN11	neutral	VC..1103	31	9
HVWP-SVJCR11	right	VC..1103	23	10
HVWP-SVJCL11	left	VC..1103	23	10
HVWP-SVQCR11	right	VC..1103	23	11
HVWP-SVQCL11	left	VC..1103	23	11
HVWP-SVUCR11	right	VC..1103	23	12
HVWP-SVUCL11	left	VC..1103	23	12

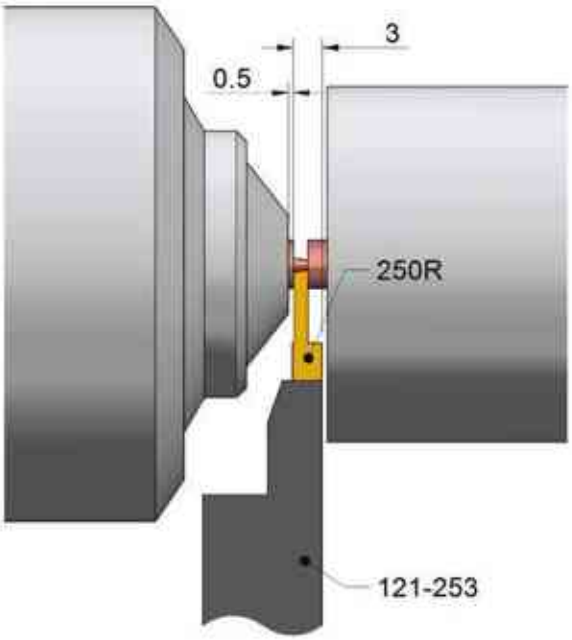
Cut-off tool holder 121
Abstech-Werkzeughalter 121
Porte-outil de tronçonnage 121

TORNOS
Deco 7/10

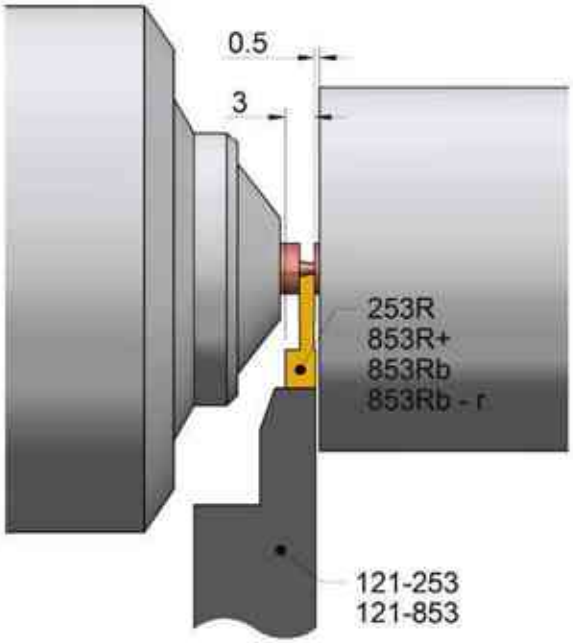
Tool holder type 121 for Tornos Deco 7/10
For small parts parting off. **No need of special collet for pick-up attachment !**

Abstech-Werkzeughalter Typ 121 für Tornos Deco 7/10
Zum Abstechen von kleinen Werkstücken. **Abstechen ohne Abgreifzange mit Vorbau !**

Porte-outil de tronçonnage type 121 pour Tornos Deco 7/10
Pour le tronçonnage de petites pièces. **Pas besoin de pince de prise de pièces à nez prolongé !**



Cutting off guide bush side
Abstechen an der Führungsbüchse
Tronçonnage côté canon



Cutting off counter-spindle side
Abstechen an der Gegenspindel
Tronçonnage côté contre-broche

Cut-off tool holder 121
Abstech-Werkzeughalter 121
Porte-outil de tronçonnage 121

Tool holders
Werkzeughalter
Porte-outils

121-253	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	Cut-off tool holder type 121 for inserts 250R and 253R Complete tool (articles 121-1 + 121-2), without insert Abstech-Werkzeughalter Typ 121 für Wendeplatten 250R und 253R Vollständiges Werkzeug (Artikel 121-1 + 121-2), ohne Wendeplatte Porte-outil de tronçonnage type 121 pour plaquettes 250R et 253R Outil complet (articles 121-1 + 121-2), sans plaquette	121-253

121-853	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	Cut-off tool holder type 121 for inserts 853R+, 853Rb and 853Rb - r Complete tool (articles 121-1 + 121-3), without insert Abstech-Werkzeughalter Typ 121 für Wendeplatten 853R+, 853Rb und 853Rb - r Vollständiges Werkzeug (Artikel 121-1 + 121-3), ohne Wendeplatte Porte-outil de tronçonnage type 121 pour plaquettes 853R+, 853Rb et 853Rb - r Outil complet (articles 121-1 + 121-3), sans plaquette	121-853

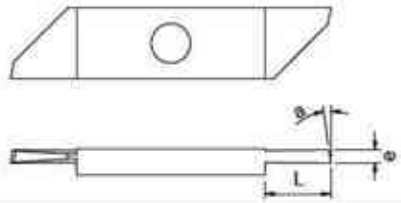
121-x	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	Only base plate Nur Basisplatte Uniquement plaque de base	121-1
	Only tool holder for inserts 250R and 253R Nur Werkzeughalter für Wendeplatten 250R und 253R Uniquement porte-outil pour plaquettes 250R et 253R	121-2
	Only tool holder for inserts 853R+, 853Rb and 853Rb - r Nur Werkzeughalter für Wendeplatten 853R+, 853Rb und 853Rb - r Uniquement porte-outil pour plaquettes 853R+, 853Rb et 853Rb - r	121-3

Cut-off tool holder 121
Abstech-Werkzeughalter 121
Porte-outil de tronçonnage 121

Inserts
Wendeplatten
Plaquettes

250R

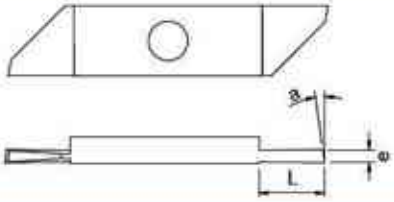
Cutting insert
Abstechplatte
Tronçonneur



e	L	a	Article nr. Artikel Nr. N° Article	BI20	BI40	TIN
1,0	4,5	18°	250R1,0	✓	✓	✓
1,2	4,5	18°	250R1,2	✓	✓	✓
1,4	7,5	18°	250R1,4	✓	✓	✓
1,5	7,5	18°	250R1,5	✓	✓	✓
1,6	9,5	8°	250R1,6	✓	✓	✓
1,8	9,5	8°	250R1,8	✓	✓	✓
2,0	9,5	8°	250R2,0	✓	✓	✓
2,5	11,0	8°	250R2,5	✓	✓	✓

253R

Opposite cutting insert
Umgekehrte Abstechplatte
Tronçonneur inversé



e	L	a	Article nr. Artikel Nr. N° Article	BI20	BI40
1,0	7,5	8°	253R1,0	✓	✓
1,2	7,5	8°	253R1,2	✓	✓
1,5	7,5	8°	253R1,5	✓	✓
1,8	7,5	8°	253R1,8		✓

800line+

Different cut off inserts
Verschiedene Abstechplatten
Différentes plaquettes de tronçonnage

For further information about 853R+, 853Rb and 853Rb - r inserts, please see the «800line+» catalog.

Für mehr Informationen über 853R+, 853Rb und 853Rb - r Wendeplatten, bitte sehen Sie die Katalog «800line+».

Pour le détail des plaquettes 853R+, 853Rb et 853Rb - r, voir le catalogue «800line+».

100-2c

Screw M3,5 x 7 Schraube M3,5 x 7 Vis M3,5 x 7	Article nr. Artikel Nr. N° Article
for / für / pour : 121-2	100-2c

100-4c

Screw M4,5 x 7 Schraube M4,5 x 7 Vis M4,5 x 7	Article nr. Artikel Nr. N° Article
for / für / pour : 121-3	100-4c

Double tool holder 400RD
Doppelwerkzeughalter 400RD
Porte-outil double 400RD

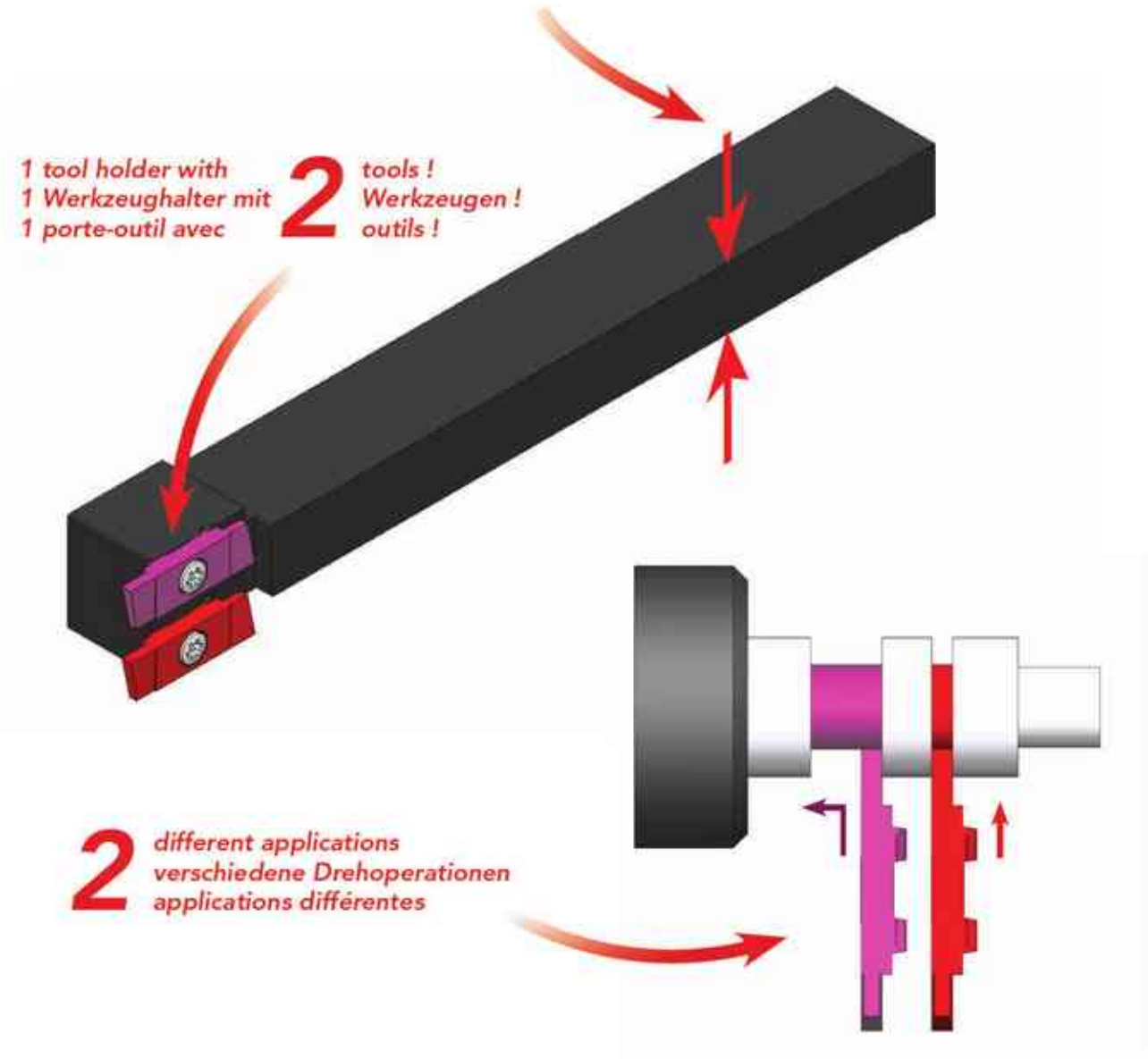
Double the quantity of tools on all machines using 7, 8, 10, 12 or 16 mm section tool holders !

Verdoppelt die Werkzeuganzahl auf allen Maschinen, die 7, 8, 10, 12 oder 16 mm Querschnittwerkzeuge benutzen !

Double le nombre d'outils sur toutes les machines utilisant des porte-outils de section 7, 8, 10, 12 ou 16 mm !

Section
Querschnitt
Section

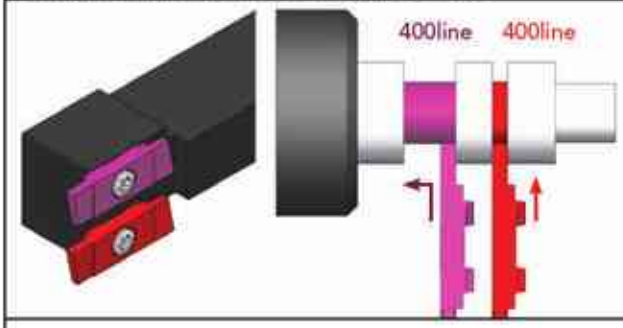
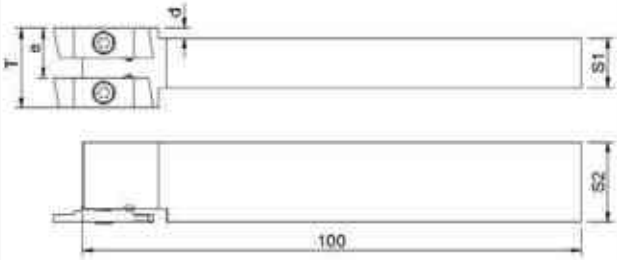
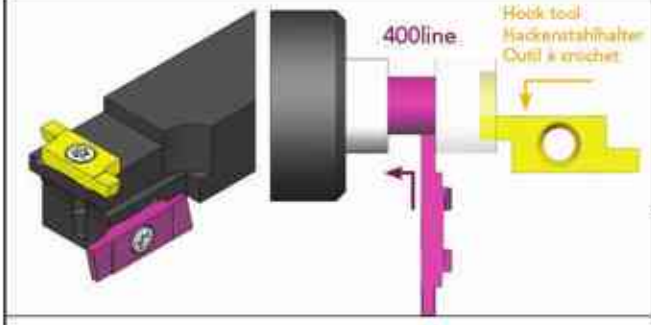
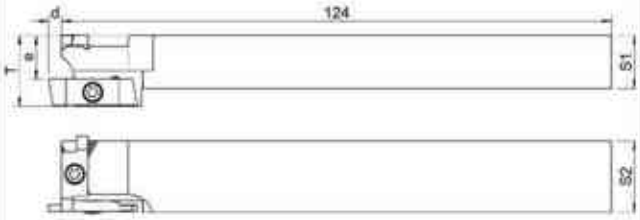
7, 8, 10, 12 , 16 mm



Double tool holder 400RD
Doppelwerkzeughalter 400RD
Porte-outil double 400RD

Maximum cutting-off :
Maximal Abstechen : *Ø 8 mm*
Tronçonnage maximum :

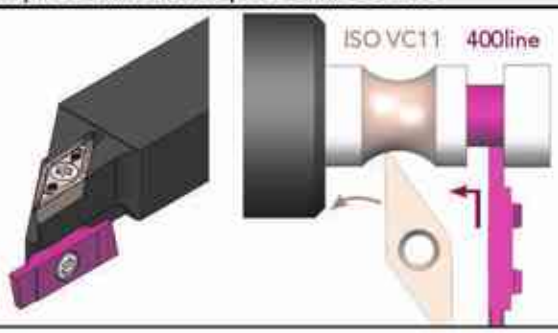
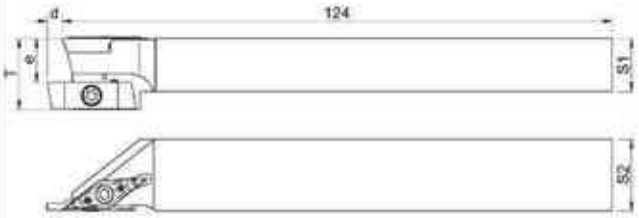
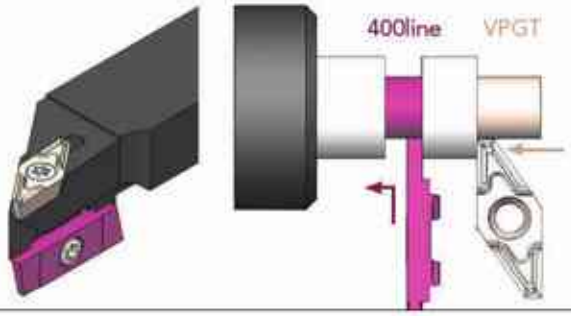
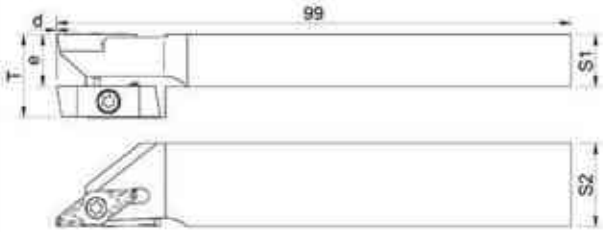
Maximum turning :
Maximal Drehen : *Ø ap 2 mm*
Tournage maximum :

Examples of use for double tool holders Anwendungsbeispiele für Doppelhalter Exemples d'utilisation de porte-outils doubles	S1	S2	T	d	e	Article nr. Artikel Nr. N° Article
	7	16	16	5	10	407RD
	8	16	16	4	10	408RD
	8	8	14	3	8	408RD8
	10	16	16	2	10	410RD
	12	16	16	2	10	412RD
	16	16	16	0	10	416RD
	8	16	16	3	10	408RDCR
	10	16	16	3	10	410RDCR
	12	16	16	3	10	412RDCR

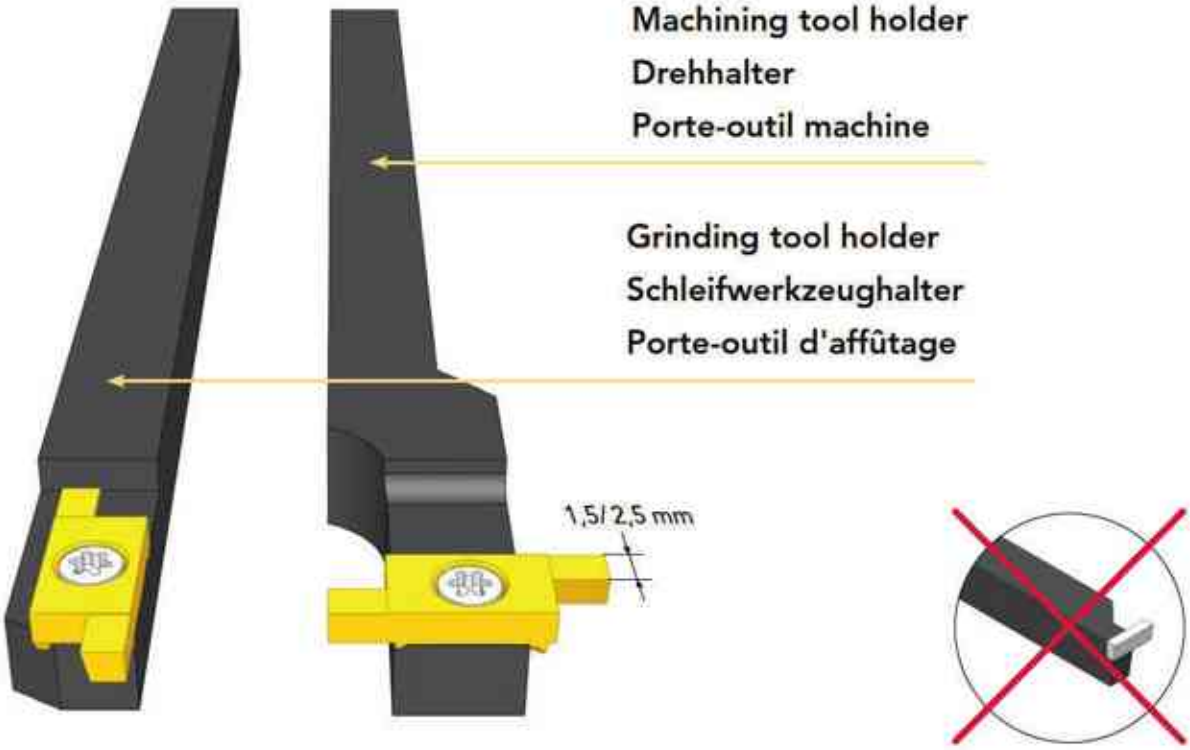
Double tool holder 400RD
Doppelwerkzeughalter 400RD
Porte-outil double 400RD

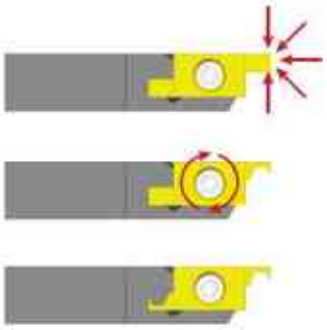
Maximum cutting-off :
Maximal Abstechen : *Ø 8 mm*
Tronçonnage maximum :

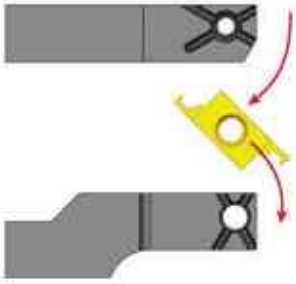
Maximum turning :
Maximal Drehen : *Ø ap 2 mm*
Tournage maximum :

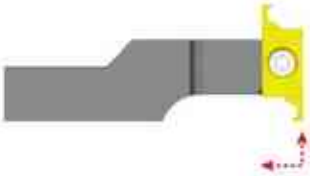
Examples of use for double tool holders Anwendungsbeispiele für Doppelhalter Exemples d'utilisation de porte-outils doubles	S1	S2	T	d	e	Article nr. Artikel Nr. N° Article
	10	16	16	3	10	410RDVC11
	12	16	16	3	10	412RDVC11
	8	16	16	0	10	408RDVPGT
	10	16	16	0	10	410RDVPGT

Hook tool holder with insert
Hakenstahlhalter mit Wendeplatte
Porte-outil à crochet avec plaquette









1. Sharpening of the 2 cutting edges of the pre-rectified blank on the grinding tool holder.

1. Einfaches Schleifen des Rohlings auf dem Schleifwerkzeughalter.

1. Meulage sans encombre des 2 arêtes de coupe de la plaquette ébauche pré-rectifiée sur le porte-outil d'affûtage.

2. Transfer of the grinded blank on the machining tool holder.

2. Wechseln der Platte vom Schleifhalter auf den Drehhalter.

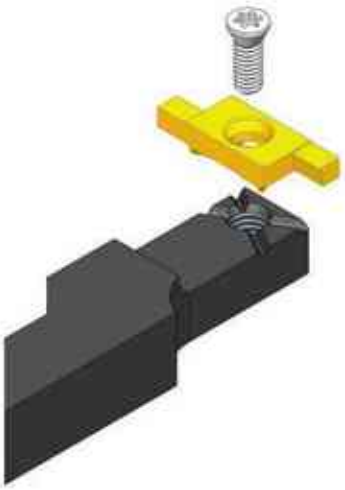
2. Transfert de la plaquette affûtée sur le porte-outil d'usinage.

3. Use of the insert set up on the machining tool holder same as a standard hook tool holder.

3. Verwendung des geschliffenen Rohlings wie ein Standard-Hakenstahl.

3. Utilisation de la plaquette montée sur le porte-outil d'usinage comme un porte-outil à crochet standard.

Hook tool holder with insert
Hakenstahlhalter mit Wendeplatte
Porte-outil à crochet avec plaquette



«X-Centering» fixing system

- Positioning in all axes.
- The screw is free of all radial stress.
- Insert turning without having to remove the screw.
- Two cutting edges available.

Befestigungssystem «X-Centering»

- Platzierung in allen Achsen.
- Keine radialen Spannungen.
- Umdrehen der Schneidplatte ohne Entfernen der Schraube.
- Zwei verfügbare Schneidkanten.

Système de fixation «X-Centering»

- Centrage dans tous les axes.
- La vis est libre de toute tension radiale.
- Retournement de la plaquette sans enlever la vis.
- Deux arêtes de coupe disponibles.

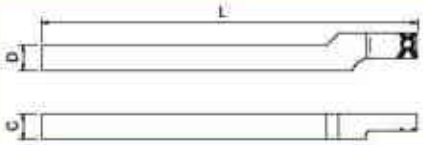
4xxxxR

Right machining tool holder
Rechter Bearbeitungswerkzeughalter
Porte-outil machine à droite

Section C x D Querschnitt C x D Section C x D	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
8 x 12	120	40812R
10 x 12	120	41012R
12 x 15	120	41215R
16 x 16	120	41616R

4xxxxL

Left machining tool holder
Linker Bearbeitungserkzeughalter
Porte-outil machine à gauche



Section C x D Querschnitt C x D Section C x D	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
7 x 7	120	40707L
8 x 8	120	40808L
12 x 12	120	41212L

4xxR

Right grinding tool holder
Rechter Schleifwerkzeughalter
Porte-outil d'affûtage à droite

Section C x D Querschnitt C x D Section C x D	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
8 x 8	120	408R
10 x 10	120	410R
12 x 12	120	412R

4xxL

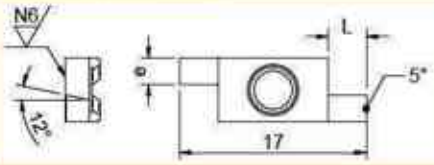
Left grinding tool holder
Linker Schleifwerkzeughalter
Porte-outil d'affûtage à gauche

Section C x D Querschnitt C x D Section C x D	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
8 x 8	120	408L
10 x 10	120	410L
12 x 12	120	412L

Hook tool holder with insert
Hakenstahlhalter mit Wendeplatte
Porte-outil à crochet avec plaquette

421R

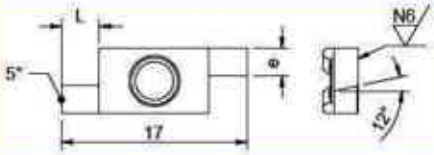
Right blank insert
Rechter Wendeplattenrohling
Plaquette ébauche à droite



ø	L	Article nr. Artikel Nr. N° Article	K10	BI40
1,5	3,5	421R1,5	✓	✓
2,5	3,5	421R2,5	✓	✓

421L

Left blank insert
Linker Wendeplattenrohling
Plaquette ébauche à gauche



ø	L	Article nr. Artikel Nr. N° Article	K10	BI40
1,5	3,5	421L1,5	✓	✓
2,5	3,5	421L2,5	✓	✓

001-3

Key
Schlüssel
Clé

	Article nr. Artikel Nr. N° Article
Torx 8	001-3

001-4

Screw for standard tool holder
Schraube für Standard-Werkzeughalter
Vis pour porte-outil standard

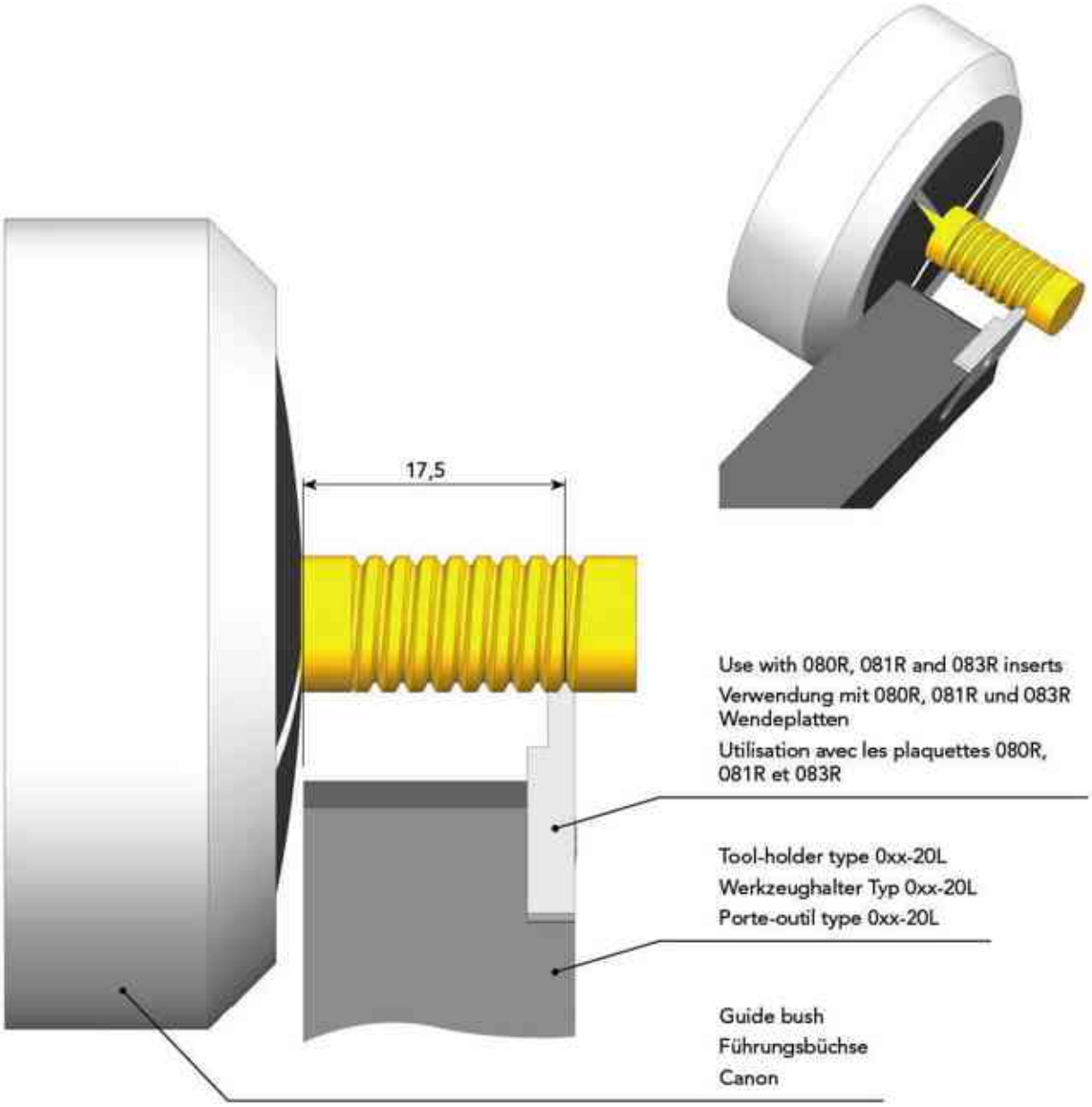
	Article nr. Artikel Nr. N° Article
M3,5 x 7,5	001-4

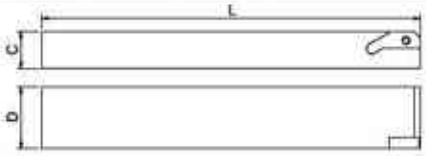
Coating of inserts
Beschichtung der Wendeplatten
Revêtement des plaquettes

✓ = Available
✓ = Verfügbar
✓ = Disponible

Designation Bezeichnung Désignation	Description Beschreibung Description
K10	**Without coating | K10 carbide** **Ohne Beschichtung | K10 Hartmetall** **Sans revêtement | Carbure K10**
BI40	**AlTi(C)N-based** • Universal coating. • High hardness. • Very smooth surface finish. • Suitable for steel and stainless steel. **AlTi(C)N-Basis** • Universalbeschichtung. • Hohe Schichthärte. • Sehr glatte Oberfläche. • Geeignet für Stahl und Edelstahl. **Base AlTi(C)N** • Revêtement universel. • Dureté élevée. • Bon glissement du copeau. • Adapté à l'acier et à l'acier inox.

Left offset threading tool holder
Versetzte linke Gewindehalter
Porte-outil à gauche décalé pour filetage



0xx-20L	Left offset threading tool holder Versetzte linke Gewindehalter Porte-outil à gauche décalé pour filetage	Section C Querschnitt C Section C	Section D Querschnitt D Section D	Length L Länge L Longueur L	Article nr. Artikel Nr. N° Article
		8	20	124	008-20L
		10	20	124	010-20L
		12	20	124	012-20L

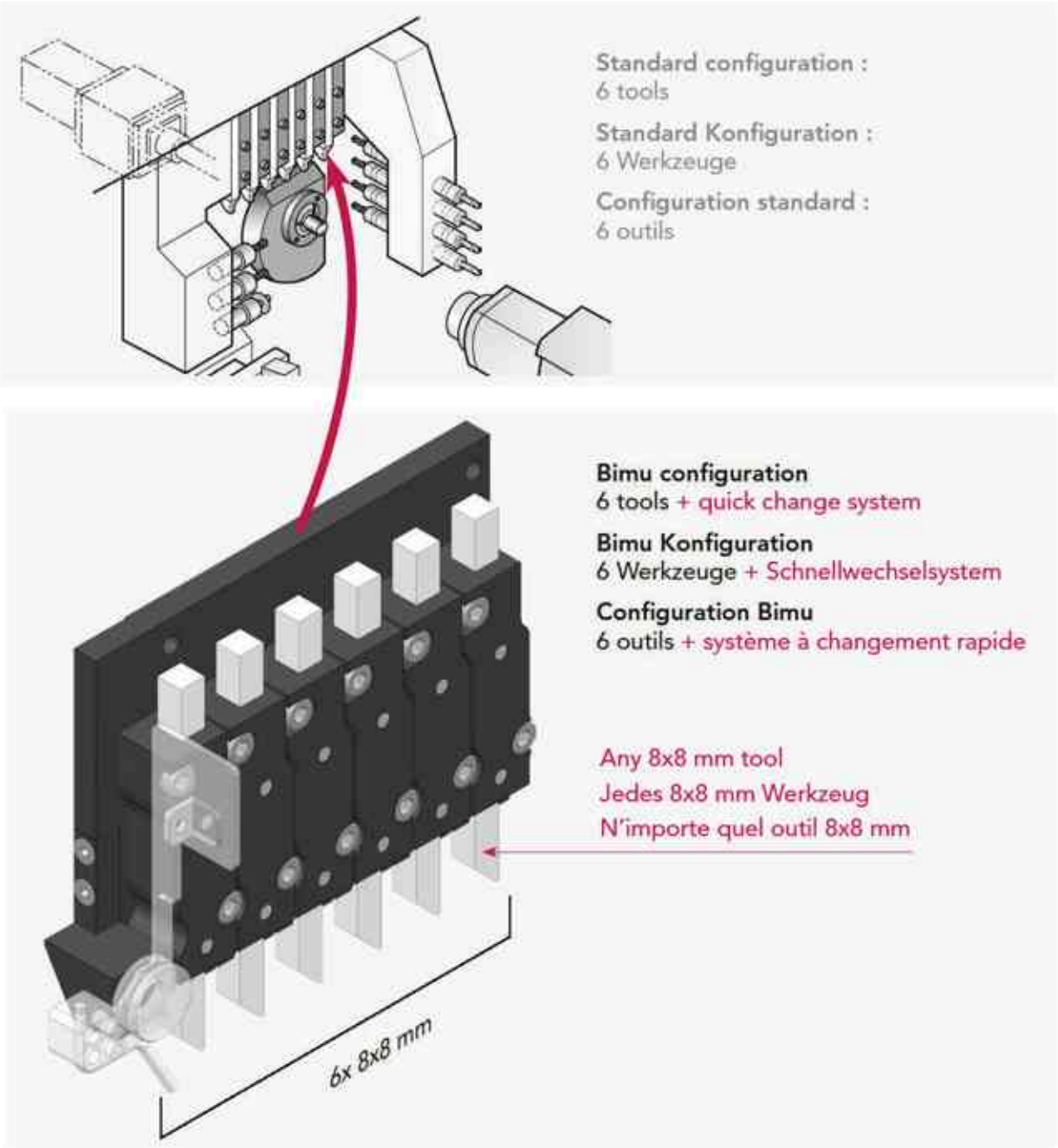
Gang for Star SR-10J
Schlitten für Star SR-10J
Peigne pour Star SR-10J

star

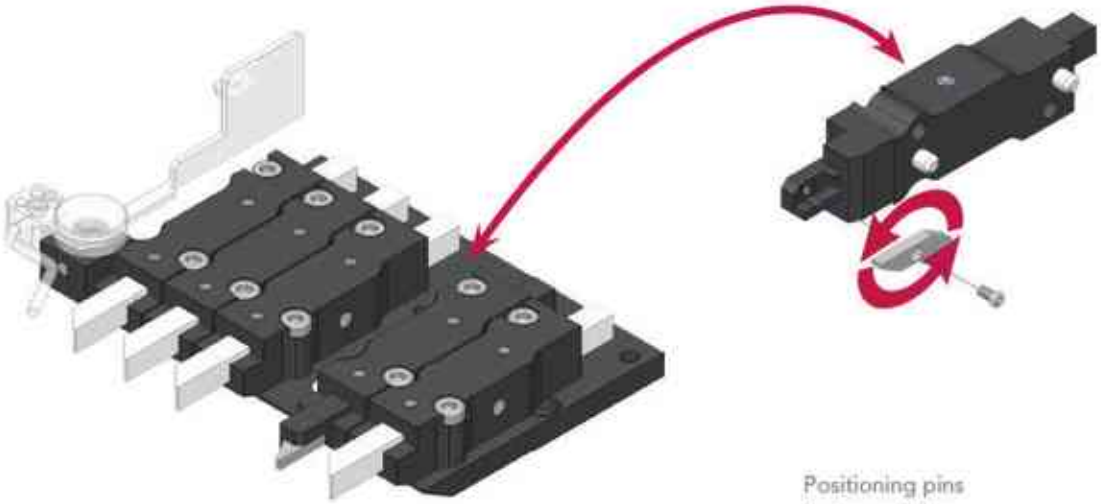
Gang with quick change system.
Usable with the tools of any brand !

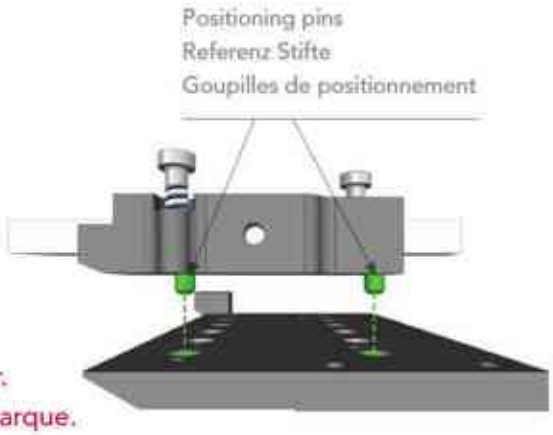
Schlitten mit Schnellwechselssystem.
Einsetzbar mit den Werkzeugen aller Hersteller !

Peigne avec système à changement rapide.
Utilisable avec les outils de n'importe quelle marque !



Gang for Star SR-10J
Schlitten für Star SR-10J
Peigne pour Star SR-10J





- Usable with the tools of any brand.
  Einsetzbar mit den Werkzeugen aller Hersteller.
  Utilisable avec les outils de n'importe quelle marque.

- Quick change: replacing the insert requires no adjustment.
  Schneller Wechsel: Das Wechseln der Wendeplatte erfordert keine Anpassung.
  Changement rapide: le remplacement de la plaquette ne nécessite pas de réglage.

- Possibility of presetting on various types of presetting benchs.
  Voreinstellbar auf verschiedene Arten von Werkzeugvoreinstellgeräten.
  Possibilité de préréglage sur différents types de prérégleurs.

	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	Base plate for gang Basisplatte für Schlitten Plaque de base pour peigne	015.21.180
	Tool holder Werkzeughalter Porte-outil	015.21.183

Citizen

Gangs with additional tool positions.
Usable with the tools of any brand !

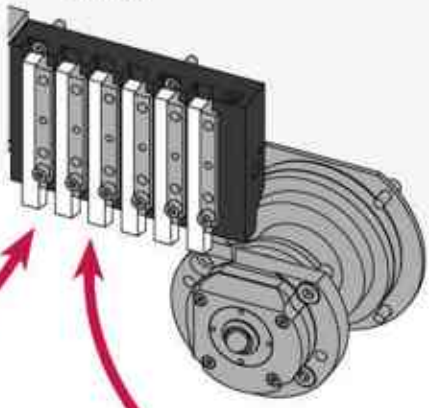
Schlitten mit zusätzlichen Werkzeug Stationen.
Verwendbar mit Werkzeugen aller Marken !

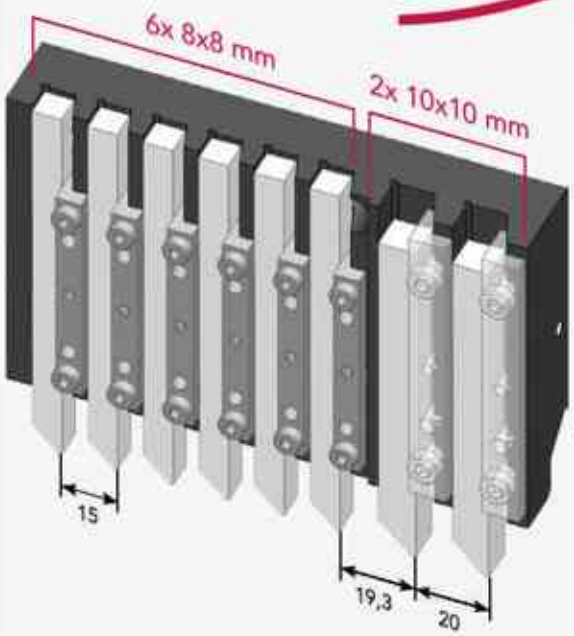
Peignes avec positions d'outil additionnelles.
Utilisables avec les outils de n'importe quelle marque !

Standard configuration :
6 tools

Standard Konfiguration :
6 Werkzeuge

Configuration standard :
6 outils

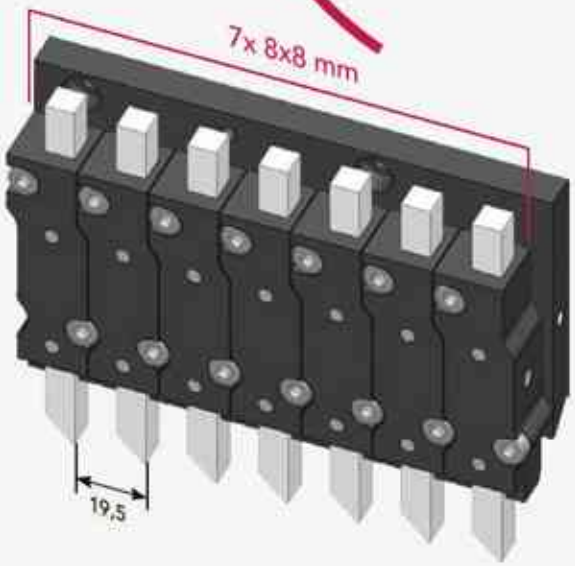




Bimu configuration - Option 1 :
8 tools

Bimu Konfiguration - Option 1 :
8 Werkzeuge

Configuration Bimu - Option 1 :
8 outils



Bimu configuration - Option 2 :
7 tools + quick change system

Bimu Konfiguration - Option 2 :
7 Werkzeuge + Schnellwechselsystem

Configuration Bimu - Option 2 :
7 outils + système à changement rapide

Option 1

The 2 wedges for 10x10 mm tool holder can also be taken from the original Citizen gang.

Die 2 Klemmleisten für 10x10 mm Werkzeughalter können auch aus dem ursprünglichen Citizen Schlitten übernommen werden.

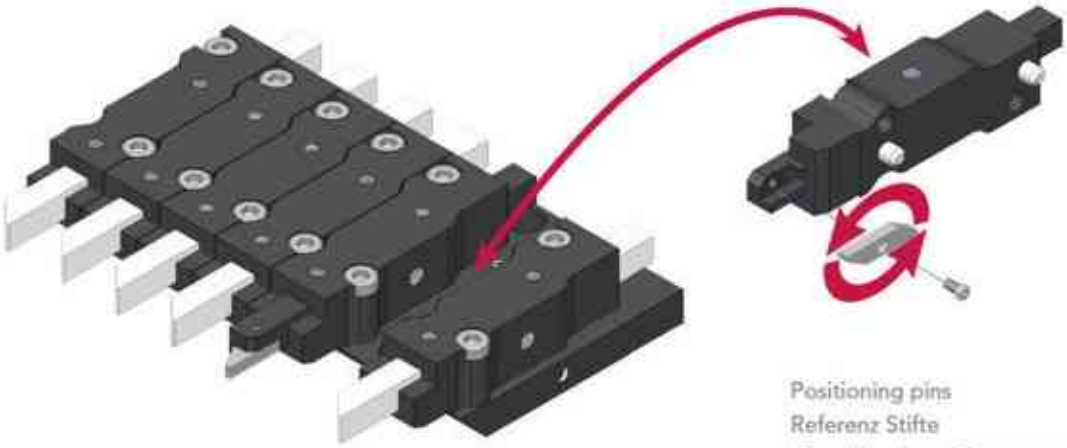
Les 2 câles pour porte-outil 10x10 mm peuvent aussi être récupérées depuis le peigne original Citizen.

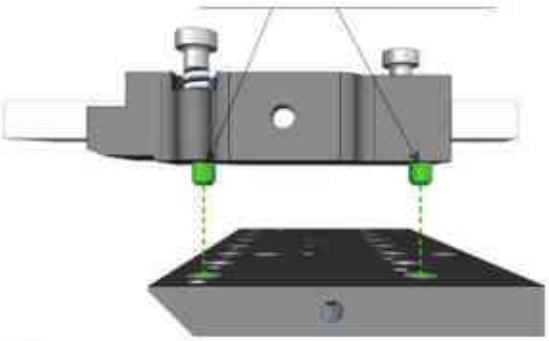
- Increase of the amount of tools (from 6 to 8).
  Erhöhte Anzahl von Werkzeugen (von 6 auf 8).
  Augmentation du nombre d'outils (de 6 à 8).

- Usable with the tools of any brand.
  Verwendbar mit Werkzeugen aller Marken.
  Utilisable avec les outils de n'importe quelle marque.

	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	Complete gang (with 6 wedges for 8x8 mm and 2 wedges for 10x10 mm Schlitten komplett (mit 6 Klemmleisten für 8x8 mm und 2 Klemmleisten für 10x10 mm) Peigne complet (avec 6 câles pour 8x8x mm et 2 câles pour 10x10 mm)	015.31.300.01
	Gang Schlitten Peigne	015.31.300
	Wedge for 8x8 mm tool holder Klemmleiste für 8x8 mm Werkzeughalter Câle de serrage pour porte-outil 8x8 mm	015.31.312
	Wedge for 10x10 mm tool holder Klemmleiste für 10x10 mm Werkzeughalter Câle de serrage pour porte-outil 10x10 mm	015.31.317

Option 2



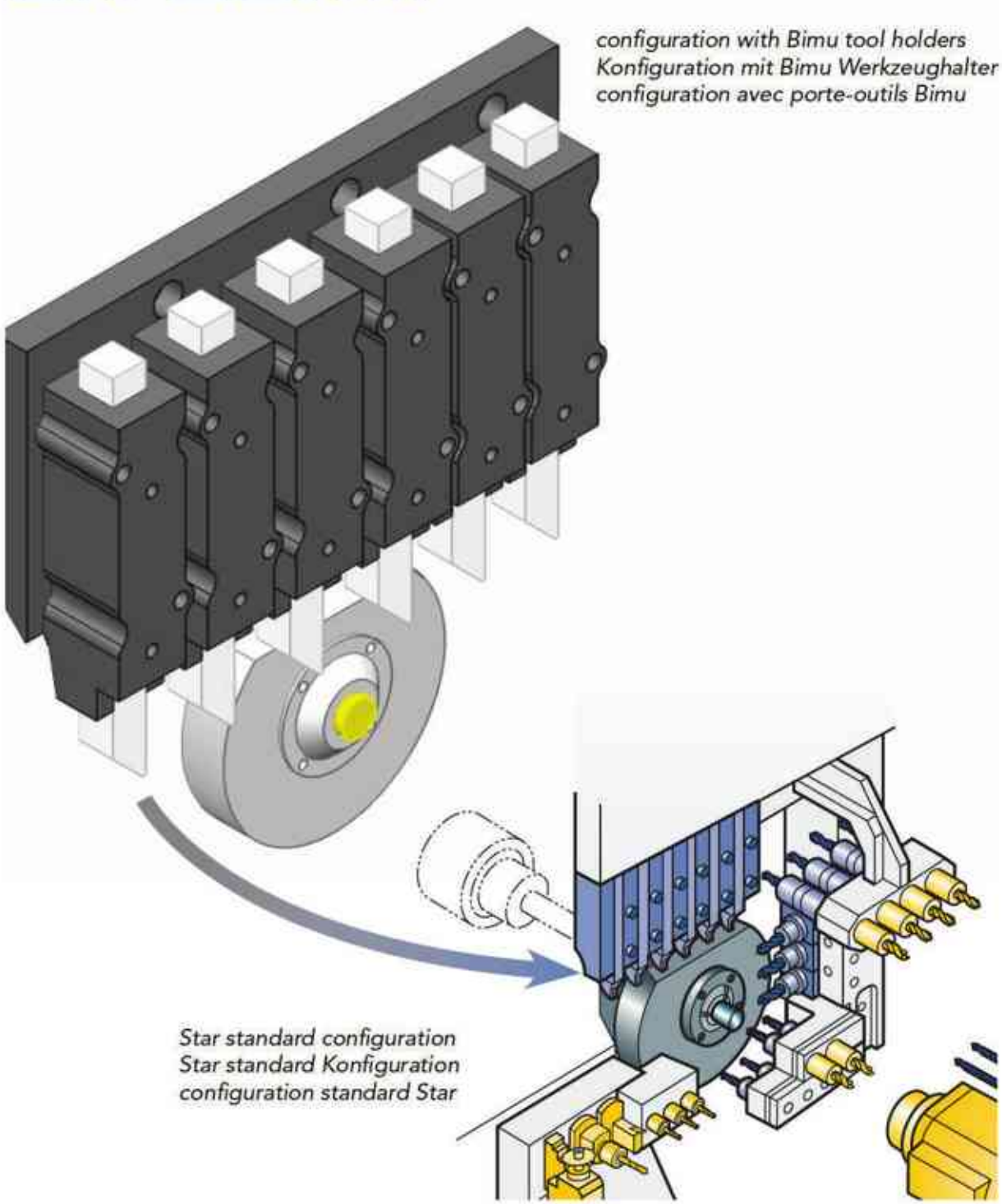


- Increase of the amount of tools (from 6 to 7).
  Erhöhte Anzahl von Werkzeugen (von 6 auf 7).
  Augmentation du nombre d'outils (de 6 à 7).
- Usable with the tools of any brand.
  Verwendbar mit Werkzeugen aller Marken.
  Utilisable avec les outils de n'importe quelle marque.
- Quick change: replacing the insert requires no adjustment.
  Schneller Wechsel: Der Wendeplattenwechsel erfordert keine Einstellung.
  Changement rapide: le remplacement de la plaquette ne nécessite pas de réglage.
- Possibility of presetting on various types of presetting benchs.
  Voreinstellung auf verschiedene Arten von Werkzeugvoreinstellgeräten möglich.
  Possibilité de préréglage sur différents types de prérégleurs.

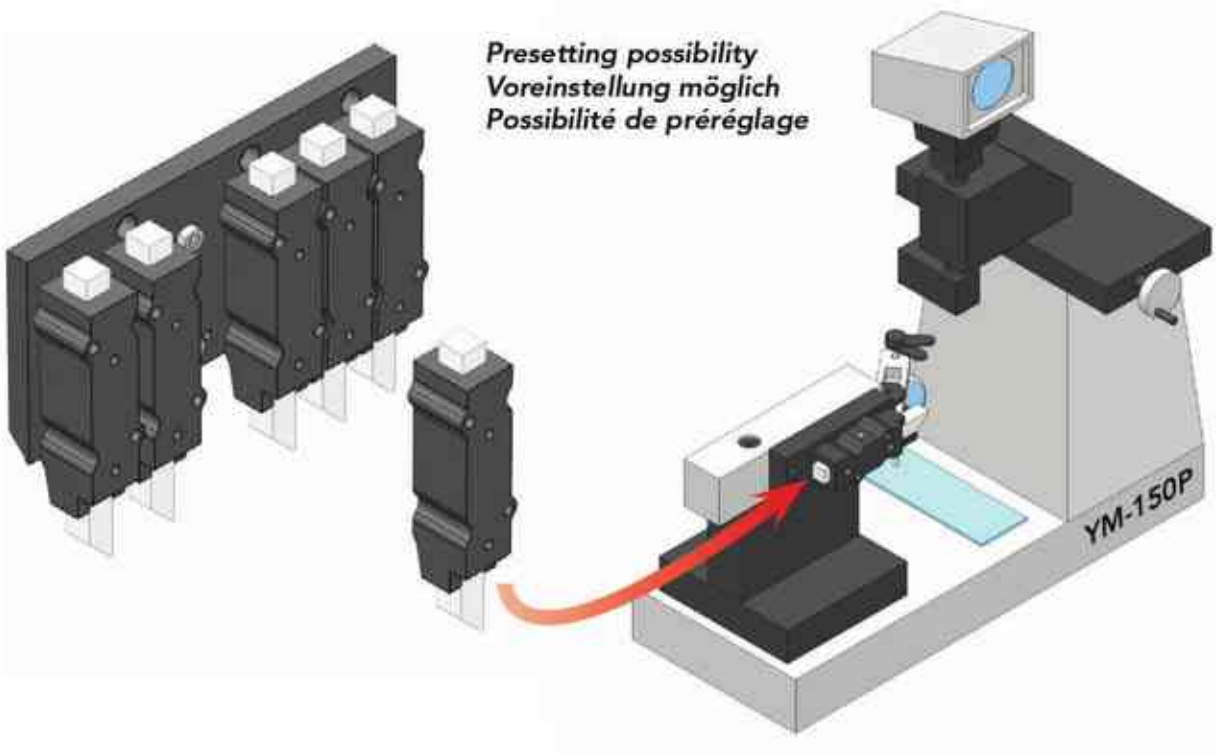
	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	Base plate for gang Basisplatte für Schlitten Plaque de base pour peigne	015.31.210
	Tool holder 8x8 mm Werkzeughalter 8x8 mm Porte-outil 8x8 mm	015.31.220

for | für | pour

SR-20RIII



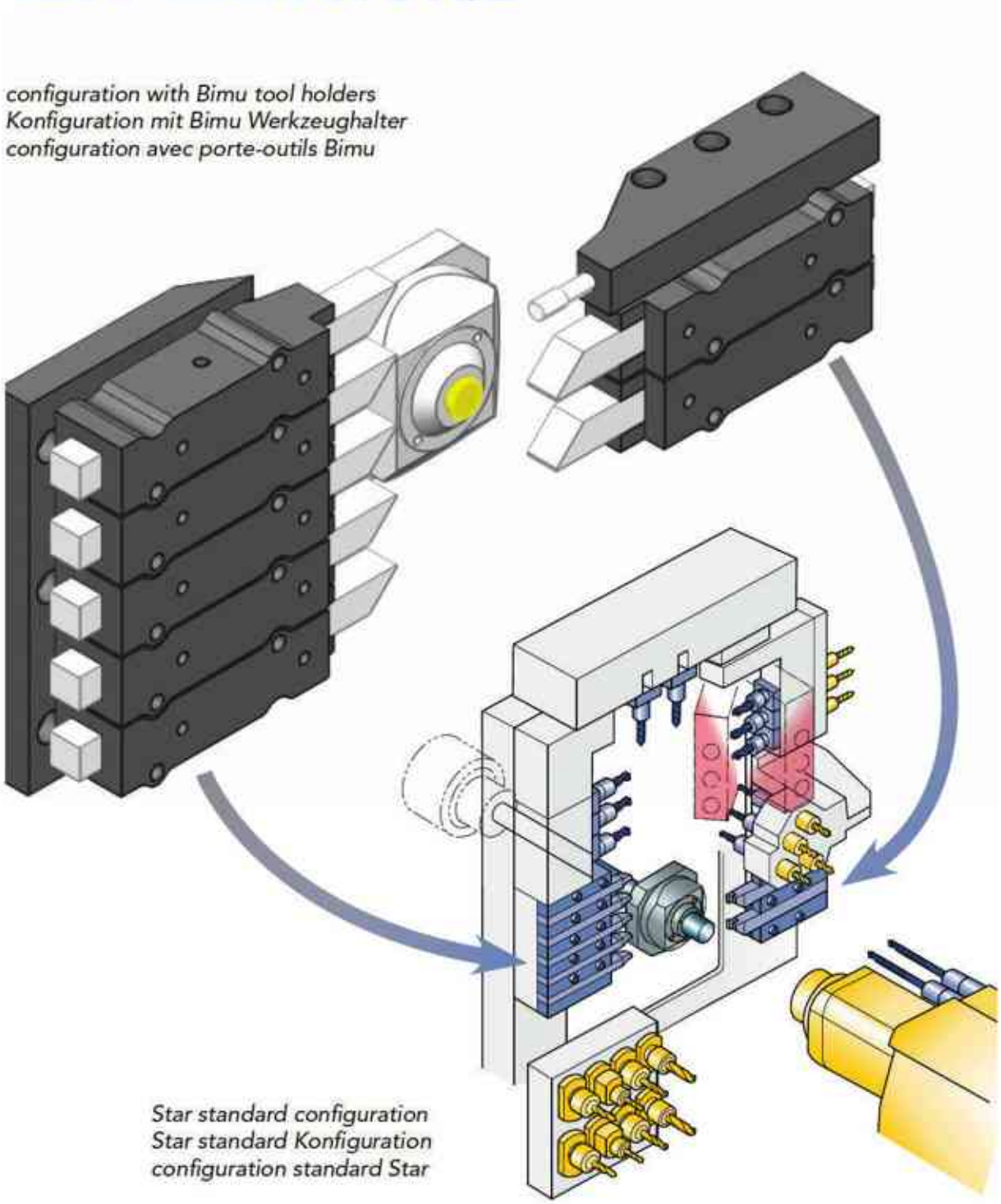
Tool holder for Star SR-20RIII
Werkzeughalter für Star SR-20RIII
Porte-outil pour Star SR-20RIII



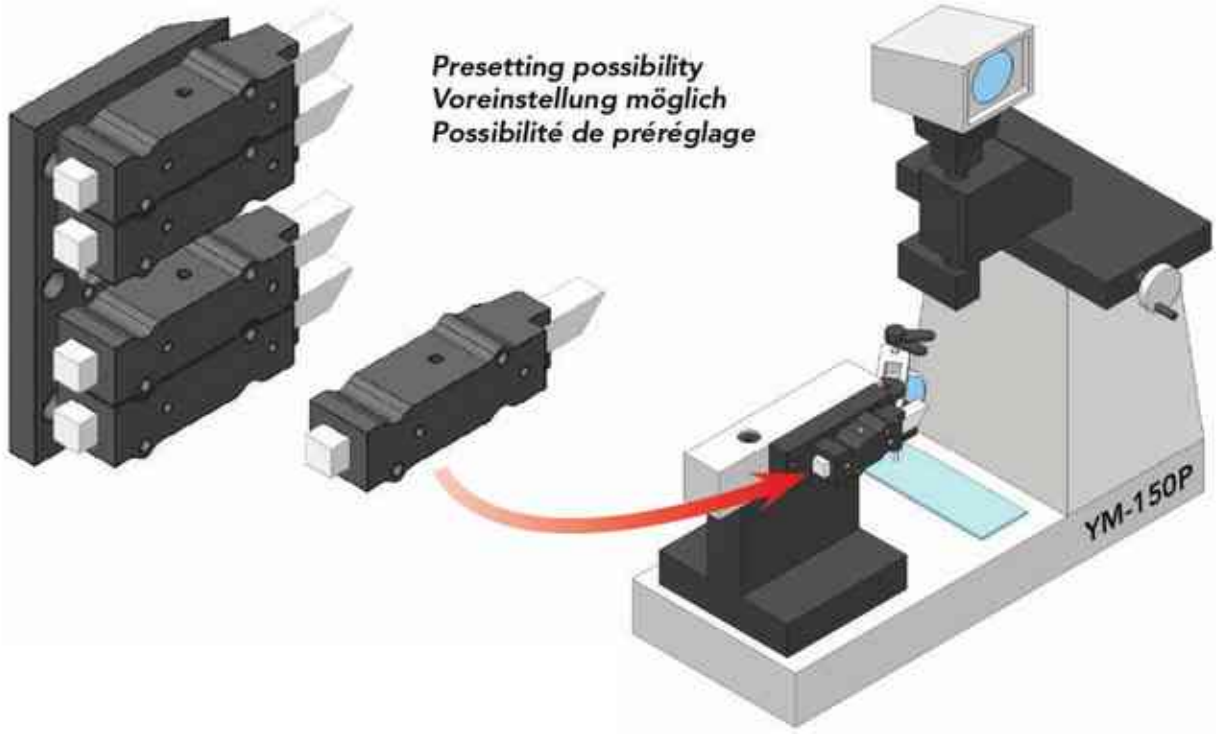
	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	Baseplate 6 positions. Basisplatte 6 Positionen. Plaque de base 6 positions.	015.21.210
	Tool holder for chisel of section 12x12 mm. Werkzeughalter für Drehstahl, Durchschnitt 12x12 mm. Porte-outil pour burin de section 12x12 mm.	015.21.200
	Presetting plate. Voreinstellplatte. Plaque de préréglage.	015.21.900

for | für | pour

SR-20RIV A/B

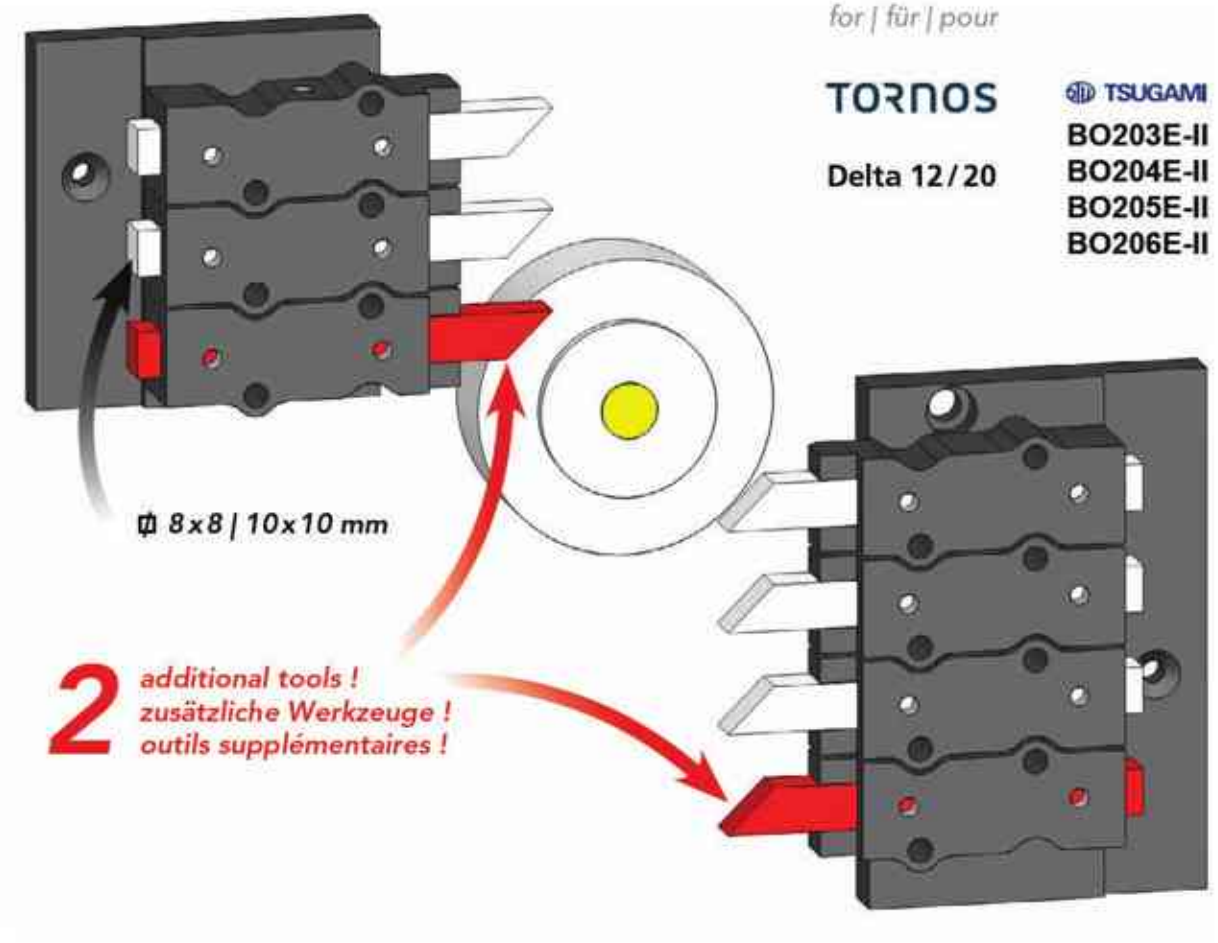


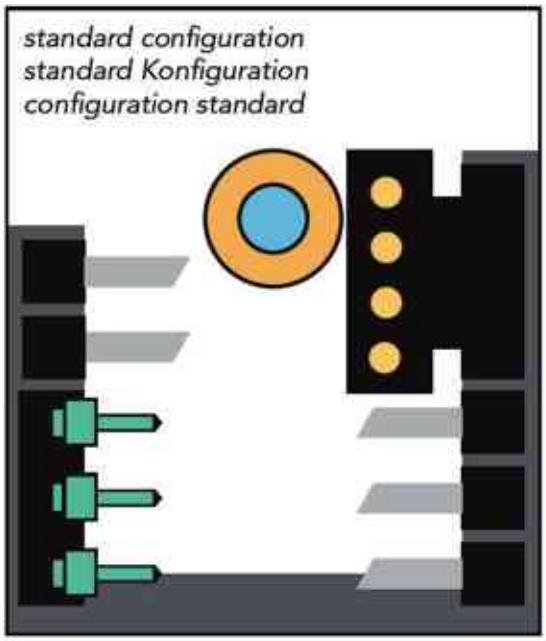
Tool holder for Star SR-20RIV
Werkzeughalter für Star SR-20RIV
Porte-outil pour Star SR-20RIV

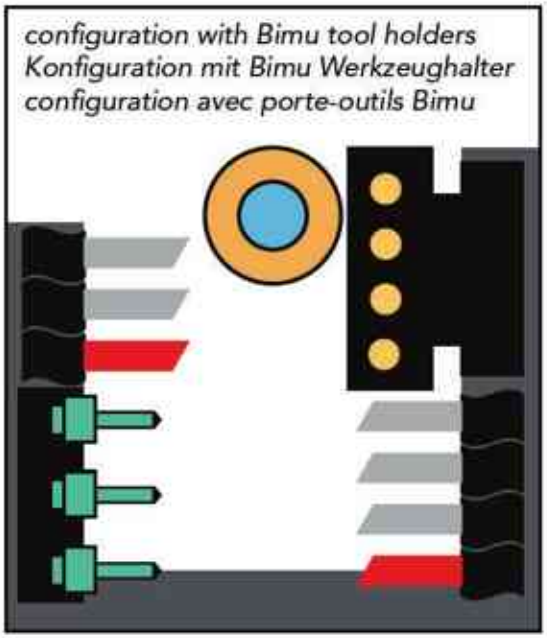


	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	Baseplate 5 positions. Basisplatte 5 Positionen. Plaque de base 5 positions.	015.21.201
	Baseplate 2 positions. Basisplatte mit 2 Positionen. Plaque de base 2 positions.	015.21.202
	Tool holder for chisel of section 12x12 mm. Werkzeughalter für Drehstahl, Durchschnitt 12x12 mm. Porte-outil pour burin de section 12x12 mm.	015.21.200
	Presetting plate. Voreinstellplatte. Plaque de préréglage.	015.21.900

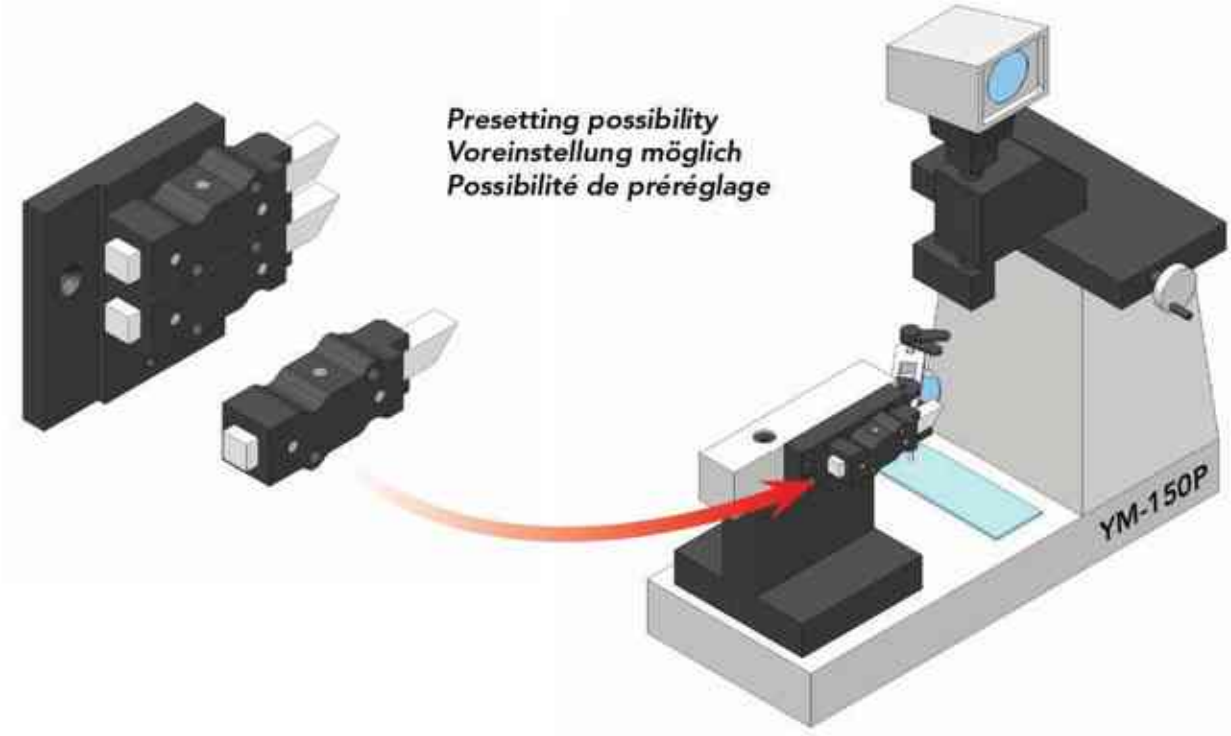
Tool holder for Tornos Delta / Tsugami BO
Werkzeughalter für Tornos Delta / Tsugami BO
Porte-outil pour Tornos Delta / Tsugami BO





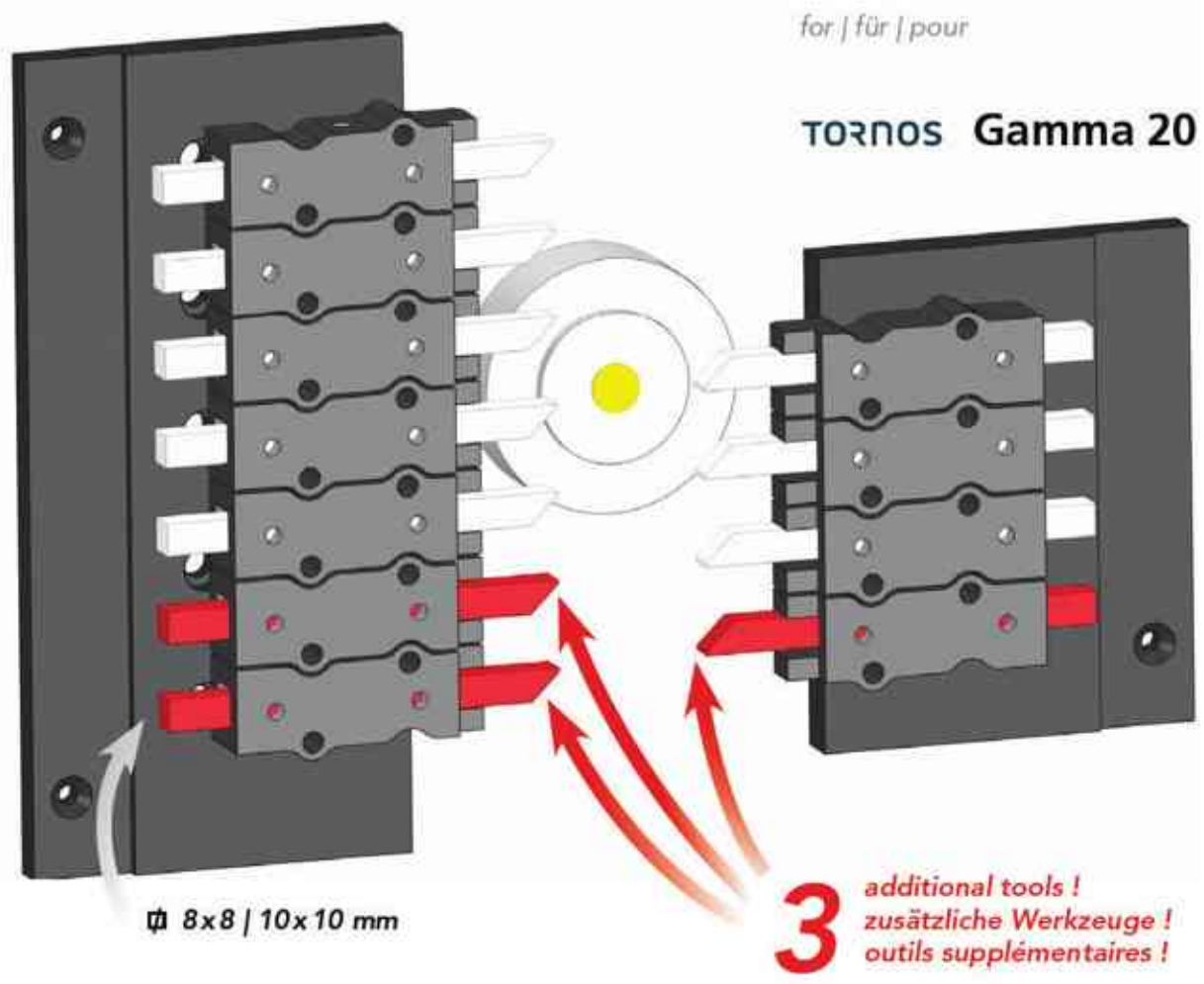


Tool holder for Tornos Delta / Tsugami BO
Werkzeughalter für Tornos Delta / Tsugami BO
Porte-outil pour Tornos Delta / Tsugami BO

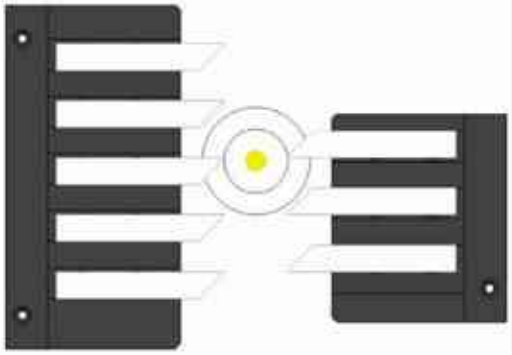


	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	Baseplate 3 positions. Basisplatte mit 3 Positionen. Plaque de base 3 positions.	015.14.203
	Baseplate 4 positions. Basisplatte mit 4 Positionen. Plaque de base 4 positions.	015.14.204
	Tool holder for chisel of section 8x8 or 10x10 mm. Werkzeughalter für Drehstahl, Querschnitt 8x8 oder 10x10 mm. Porte-outil pour burin de section 8x8 ou 10x10 mm.	015.14.210
	Presetting plate. Voreinstellplatte. Plaque de préréglage.	015.14.900

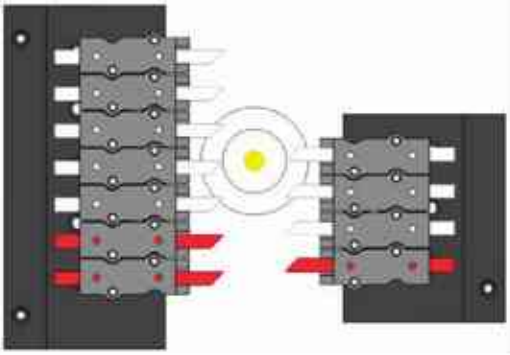
Tool holder for Tornos Gamma 20
Werkzeughalter für Tornos Gamma 20
Porte-outil pour Tornos Gamma 20



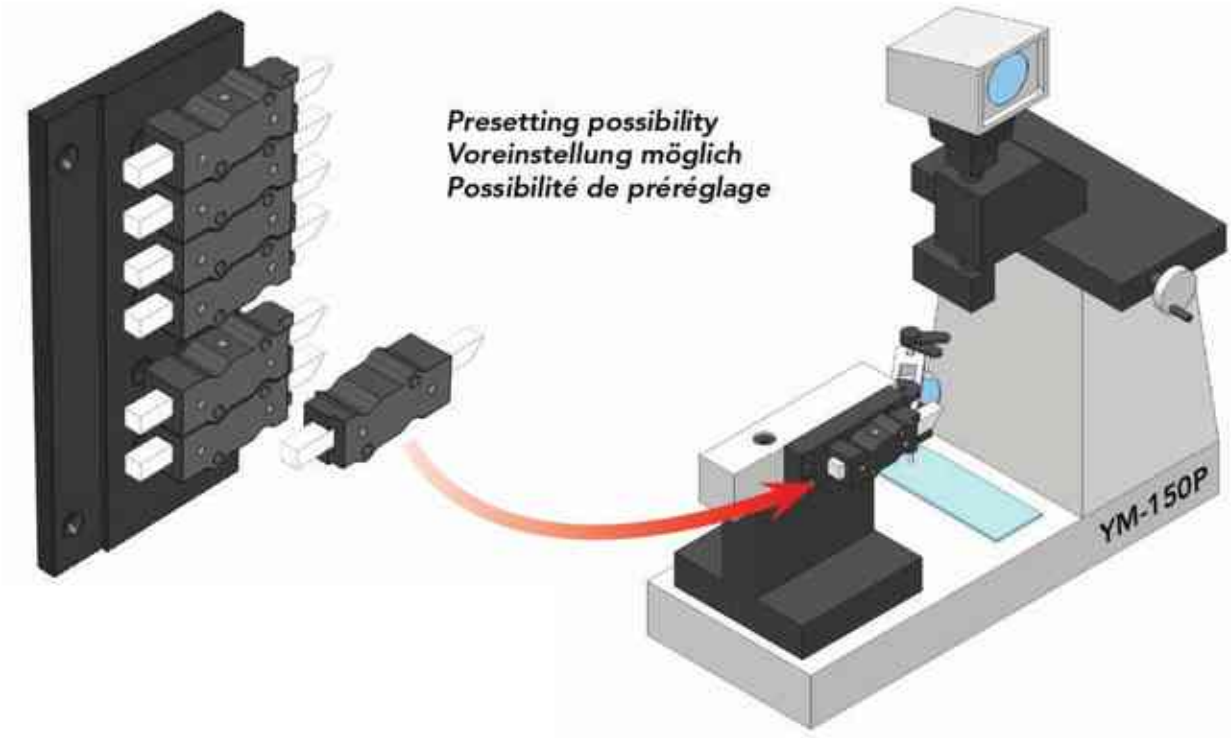
standard configuration
standard Konfiguration
configuration standard



configuration with Bimu tool holders
Konfiguration mit Bimu Werkzeughalter
configuration avec porte-outils Bimu



Tool holder for Tornos Gamma 20
Werkzeughalter für Tornos Gamma 20
Porte-outil pour Tornos Gamma 20

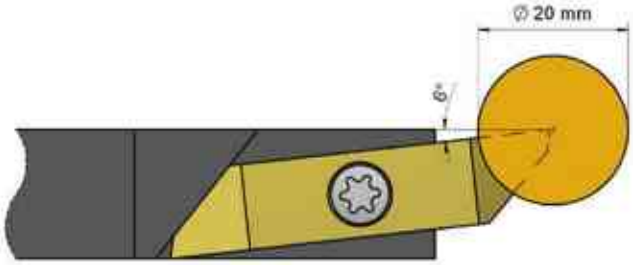


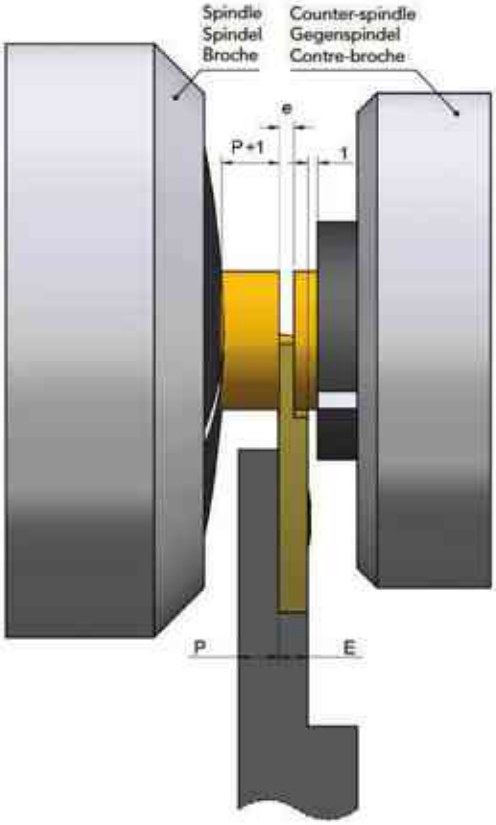
	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	Baseplate 7 positions. Basisplatte 7 Positionen. Plaque de base 7 positions.	015.14.317
	Baseplate 4 positions. Basisplatte mit 4 Positionen. Plaque de base 4 positions.	015.14.314
	Tool holder for chisel of section 8x8 or 10x10 mm. Werkzeughalter für Drehstahl, Durchschnitt 8x8 oder 10x10 mm. Porte-outil pour burin de section 8x8 ou 10x10 mm.	015.14.210
	Presetting plate. Voreinstellplatte. Plaque de préréglage.	015.14.900

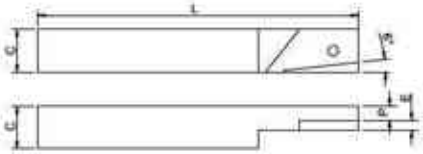
for | für | pour

TORNOS

AS 14
SAS 16





2xxR	Tool holder with insert at 6° Werkzeughalter mit Wendeplatte auf 6° Porte-outil avec plaquette à 6°	C	L	P	E	Article nr. Artikel Nr. N° Article
		12	90	4	3	212R4-3-90 *
		12	90	—	4	212R-90 **
		16	120	4	3	216R4-3-120 *

* *Use with inserts type 2xxR*
* *Verwendung mit Wendeplattentyp 2xxR*
* *Utilisation avec les plaquettes de type 2xxR*

** *Use with inserts type 1xxR*
** *Verwendung mit Wendeplattentyp 1xxR*
** *Utilisation avec les plaquettes de type 1xxR*

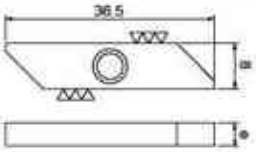
100-1	Key Schlüssel Clé	Article nr. Artikel Nr. N° Article
	Torx 15	100-1

100-2	Screw M3,5 x 9 Schraube M3,5 x 9 Vis M3,5 x 9	Article nr. Artikel Nr. N° Article
	for / für / pour : 212R-90	100-2c

100-2c	Screw M3,5 x 7 Schraube M3,5 x 7 Vis M3,5 x 7	Article nr. Artikel Nr. N° Article
	for / für / pour : 212R4-3-90; 216R4-3-120	100-2c

140R/L

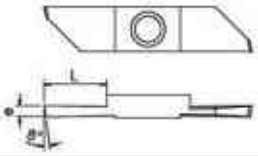
Blank insert
Rohling
Plaquette ébauche



e	Article nr. Artikel Nr. N° Article	K10	TiN
4,0	140R/L4,0	✓	✓

150R

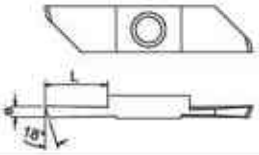
Cutting insert 8°
Abstechplatte 8°
Tronçonneur 8°



e	L	Article nr. Artikel Nr. N° Article	BI20	BI40	TiN
1,0	5	150R1,0	✓	✓	✗
1,5	7,5	150R1,5	✓	✗	✓
1,8	9,5	150R1,8	✓	✗	✓
2,0	11	150R2,0	✓	✗	✓
2,5	11	150R2,5	✗	✗	✓
3,0	11	150R3,0	✗	✗	✓

155R

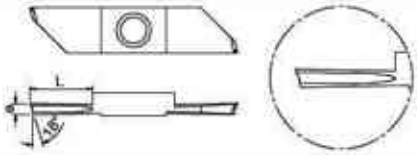
Cutting insert 18°
Abstechplatte 18°
Tronçonneur 18°



e	L	Article nr. Artikel Nr. N° Article	BI20	BI40	TiN
1,5	7,5	155R1,5	✓	✓	✓
2,0	11	155R2,0	✓	✓	✓
2,5	11	155R2,5	✓	✓	✗

154R

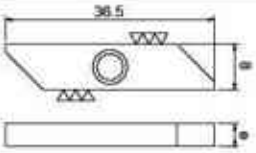
Cutting insert with chip roller
Abstechplatte mit Spanroller
Tronçonneur avec roule-copeau



e	L	Article nr. Artikel Nr. N° Article	BI40
1,5		154R1,5	✓
2,0		154R2,0	✓

240R

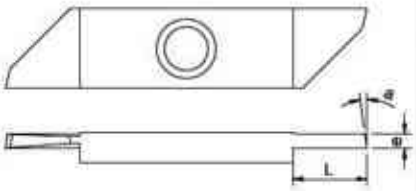
Blank insert
Rohling
Plaquette ébauche



e	Article nr. Artikel Nr. N° Article	K10
3,0	240R3,0	✓

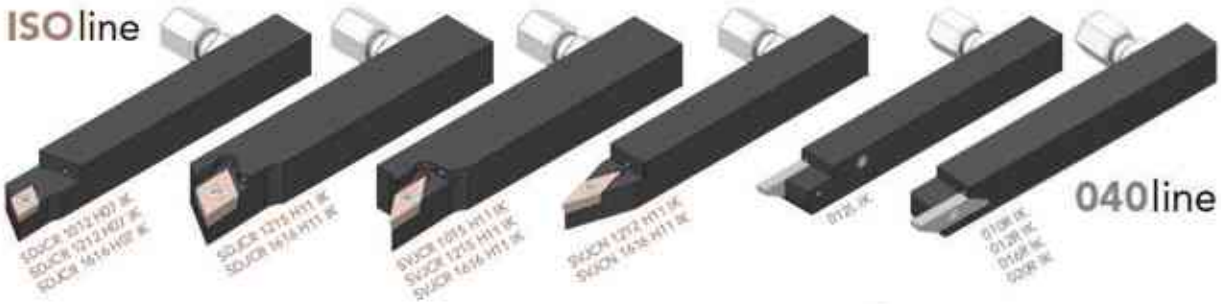
250R

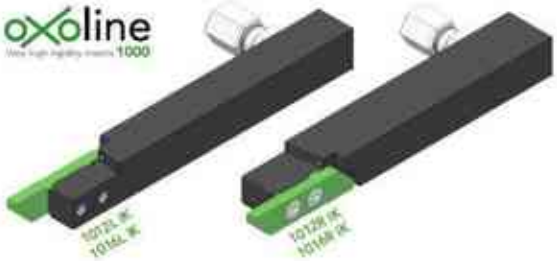
Cutting insert
Abstechplatte
Tronçonneur

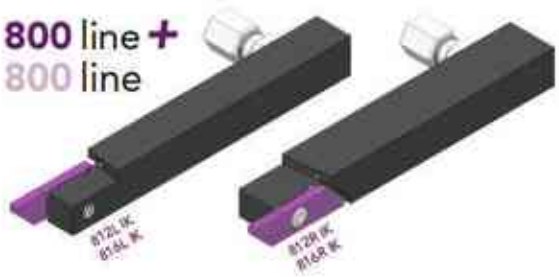


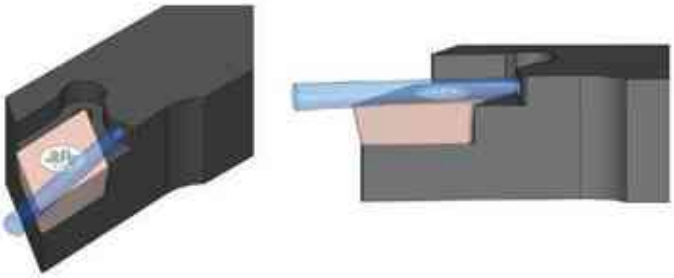
e	L	a	Article nr. Artikel Nr. N° Article	BI20	BI40	TiN
1,0	4,5	18°	250R1,0	✓	✓	✓
1,2	4,5	18°	250R1,2	✓	✓	✓
1,4	7,5	18°	250R1,4	✓	✓	✓
1,5	7,5	18°	250R1,5	✓	✓	✓
1,6	9,5	8°	250R1,6	✓	✓	✓
1,8	9,5	8°	250R1,8	✓	✓	✓
2,0	9,5	8°	250R2,0	✓	✓	✓
2,5	11,0	8°	250R2,5	✓	✓	✓

Tool holders with internal coolant
Werkzeughalter mit Innenkühlung
Porte-outils avec arrosage intégré

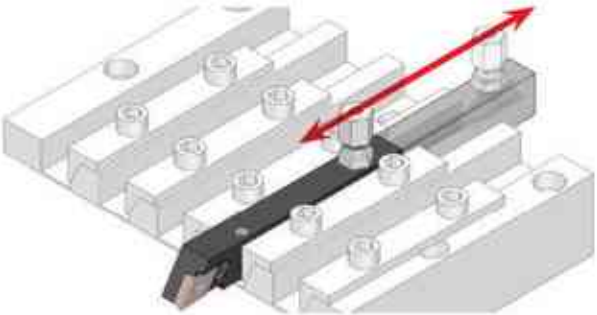




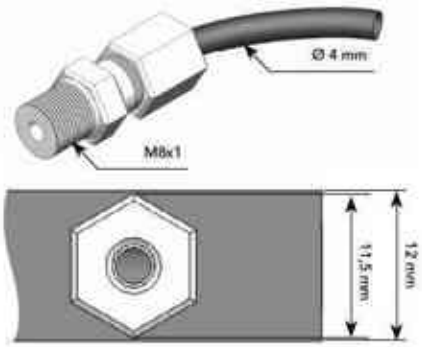




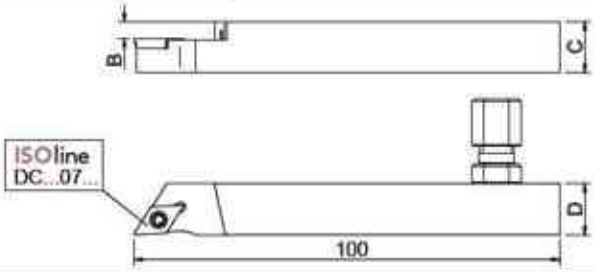
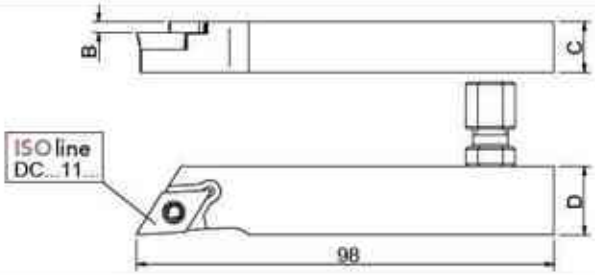
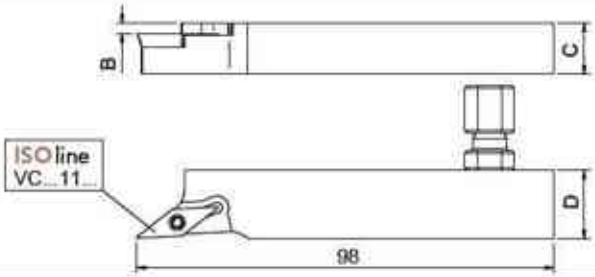
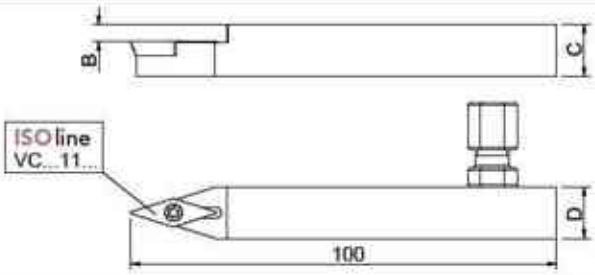
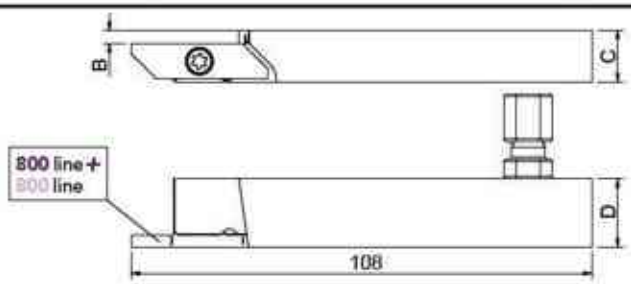
- High pressure coolant directly on the cutting edge. Coolant in the insert's axis.
- Durch Hochdruckkühlung entlang der Längsachse, direkt auf die Schneidkante der Wendeplatte, erhalten Sie eine deutlich bessere Oberfl ächengüte und erheblich längere Standzeiten Ihrer Werkzeuge.
- Arrosage haute pression sur l'arête de coupe. Jet dans l'axe de la plaquette.

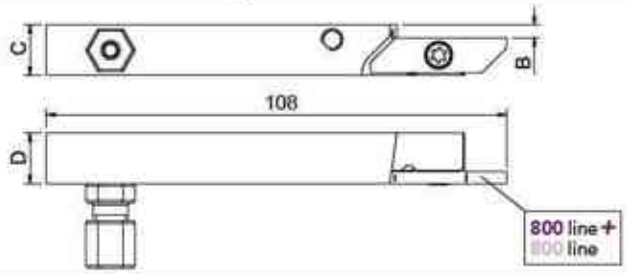
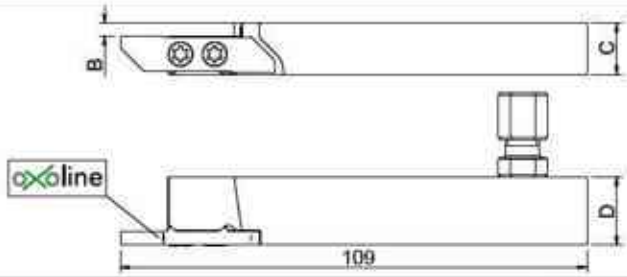
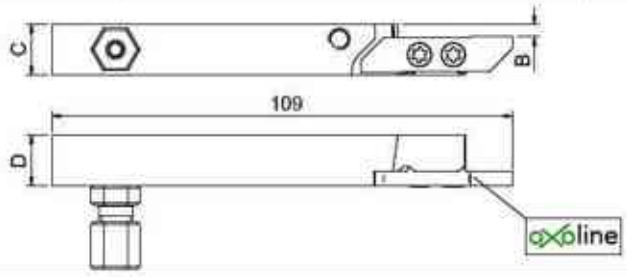
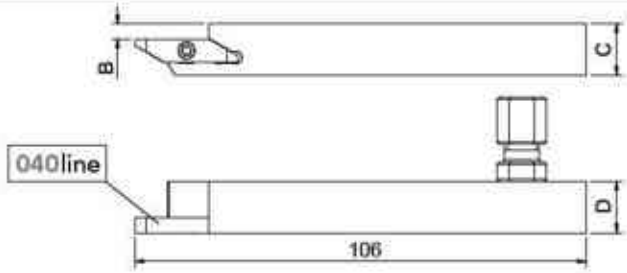
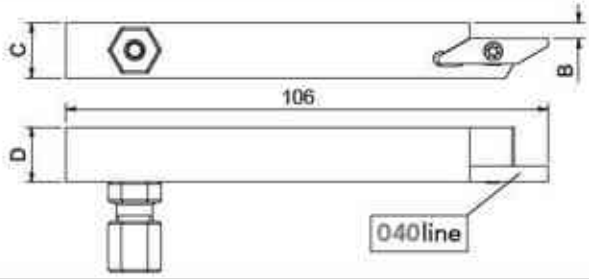


- Possibility to slide the tool holder on whole length for setting.
- Beim Einrichten können diese Werkzeughalter in ihrer gesamten Länge auf dem Träger gleiten.
- Possibilité de coulisser l'outil sur toute la longueur pour le réglage.



- The hydraulic fitting does not cover the tool, even for section 12x12 mm.
- Das hydraulische Anschlussstück ragt nicht über die Breite des Halters hinaus, auch nicht bei Querschnitten 12x12 mm.
- Le raccord hydraulique ne dépasse pas de l'outil même en section 12x12 mm.

Tool holders with internal coolant Werkzeughalter mit Innenkühlung Porte-outils avec arrosage	CxD CxD CxD	B B B	Article nr. Artikel Nr. Nº Article
	10x12 mm	3	SDJCR 1012 H07 IK
	12x12 mm	4	SDJCR 1212 H07 IK
	16x16 mm	4	SDJCR 1616 H07 IK
	12x15 mm	2,5	SDJCR 1215 H11 IK
	16x16 mm	2,5	SDJCR 1616 H11 IK
	10x15 mm	2,5	SVJCR 1015 H11 IK
	12x15 mm	2,5	SVJCR 1212 H11 IK
	16x16 mm	4	SVJCR 1616 H11 IK
	12x12 mm	4	SVJCN 1212 H11 IK
	16x16 mm	4	SVJCN 1616 H11 IK
	12x15 mm	3	812R IK
	16x16 mm	3	816R IK

Tool holders with internal coolant Werkzeughalter mit Innenkühlung Porte-outils avec arrosage	CxD CxD CxD	B B B	Article nr. Artikel Nr. Nº Article
	12x12 mm	3	812L IK
	16x16 mm	3	816L IK
	12x15 mm	3	1012R IK
	16x16 mm	3	1016R IK
	12x12 mm	3	1012L IK
	16x16 mm	3	1016L IK
	10x12 mm	2,5	010R IK
	12x12 mm	3,5	012R IK
	16x16 mm	3,5	016R IK
	20x20 mm	3,5	020R IK
	12x12 mm	3,5	012L IK

Replacement screw for tool holder... Ersatzschraube für Werkzeughalter... Vis de remplacement pour porte-outil...	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
SDJCR 1012 H07 IK	M2,5 x 7,5	001-7
SDJCR 1212 H07 IK		
SDJCR 1616 H07 IK		
SDJCR 1215 H11 IK	M3,5 x 7	100-2c
SDJCR 1616 H11 IK	M3,5 x 9	100-2
SVJCR 1015 H11 IK	M2,5 x 7,5	001-7
SVJCR 1215 H11 IK		
SVJCR 1616 H11 IK		
SVJCN 1212 H11 IK		
812R IK	M4,5 x 10,5	100-4
816R IK		
812L IK		
816L IK		
1012R IK	M3,5 x 9	001-8
1016R IK		
1012L IK		
1016L IK		
010R IK	M2,5 x 7,5	001-2
012R IK		
016R IK		
020R IK		
012L IK		

1 hydraulic fitting (M8x1, cone shape, output Ø 4 mm) is delivered with each tool holder.
1 hydraulischer Anschluss (M8x1, konisch, Ausgang Ø 4 mm) wird mit jedem Werkzeughalter geliefert.
1 raccord hydraulique (M8x1 conique, sortie Ø 4 mm) est livré avec chaque porte-outil.

To guarantee the smooth running of tool holders, the oil must be filtered in 60 µm.
Um einen reibungslosen Ablauf der Werkzeughalter zu gewährleisten, muss das Öl in 60 µm filtriert werden.
Afin de garantir le bon fonctionnement des porte-outils, l'huile doit être filtrée à 60 µm.

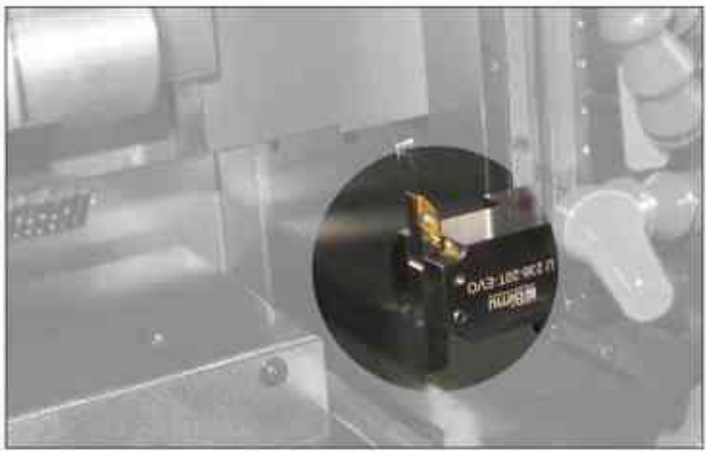
Use of different tools in counter-operation
Verwendung von verschiedenen Werkzeugen für Rückbearbeitung
Utilisation de différents outils en contre-opération

Tool holder with micrometric adjustment for
Werkzeughalter mit mikrometrische Anpassung für
Porte-outil avec réglage micrométrique de la hauteur pour

Tornos Deco 10

Tool holder for
Werkzeughalter für
Porte-outil pour

Tornos EvoDeco 10



Universal turning tool holder for counter-operation
Universal Drehwerkzeughalter für Rückseitenbearbeitung
Porte-outil de tournage universel pour contre-opération

Tornos Deco 10

Illustration Zeichnung Illustration	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	Universal tool holder Ø 20 mm with micrometric adjustment, without flat. Universal Werkzeughalter Ø 20 mm mit mikrometrische Anpassung, ohne Fläche. Porte-outil universel Ø 20 mm avec réglage micrométrique, sans plat.	U 236 - 20T
	Adapter for tool holders 10x10 mm. Adapter für Werkzeughalter 10x10 mm. Adaptateur pour porte-outils 10x10 mm.	U 236 - E 1010
	Adapter for tool holders 8x8 mm. Adapter für Werkzeughalter 8x8 mm. Adaptateur pour porte-outils 8x8 mm.	U 236 - E 88
	Adapter for drills. Adapter für Bohrer. Adaptateur pour mèches.	U 236 - ER 11

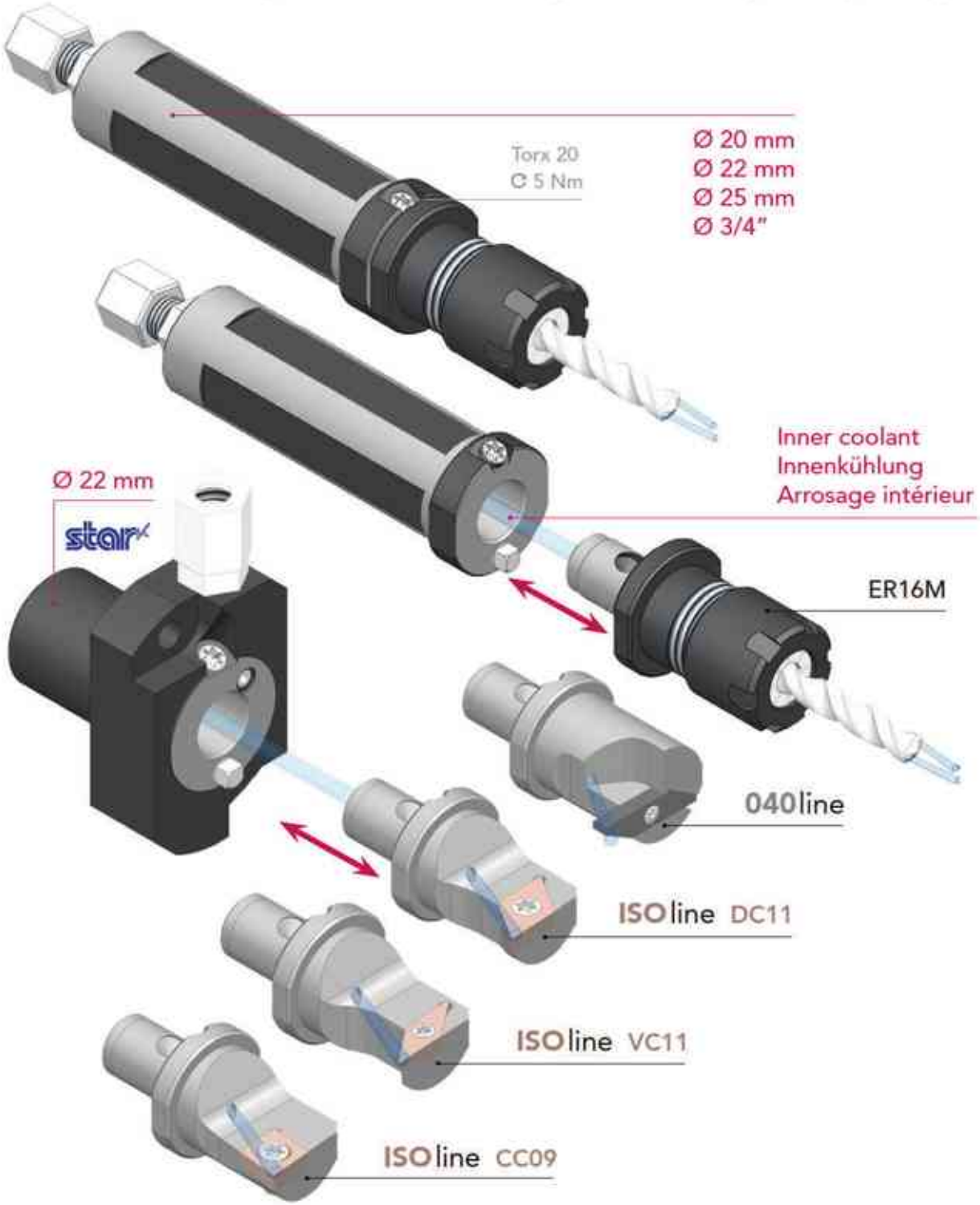
Tornos EvoDeco 10

Illustration Zeichnung Illustration	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	Universal tool holder Ø 20 mm, without flat, for tool holders 8x8 mm. Universal Werkzeughalter Ø 20 mm, ohne Fläche, für Werkzeughalter 8x8 mm. Porte-outil universel Ø 20 mm, sans plat, pour porte-outils 8x8 mm.	U 236 - 20T - EVO

Other machines Ø 20 mm
Andere Maschinen Ø 20 mm
Autres machines Ø 20 mm

Illustration Zeichnung Illustration	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	Universal tool holder Ø 20 mm with micrometric adjustment, with flat. Universal Werkzeughalter Ø 20 mm mit mikrometrische Anpassung, mit Fläche. Porte-outil universel Ø 20 mm avec réglage micrométrique, avec plat.	U 236 - 20K - WD

Modular system of tool holders with cylindrical shaft
Modulares zylindrisches Werkzeugsystem
Système modulaire de porte-outils à queue cylindrique



Advantages of the modular system

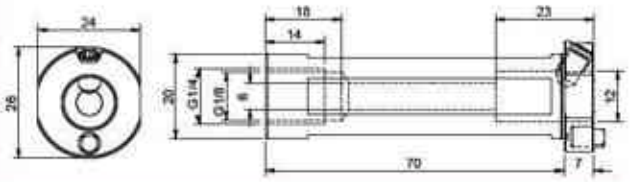
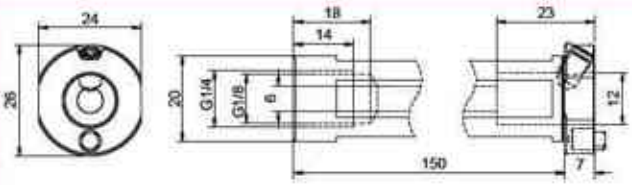
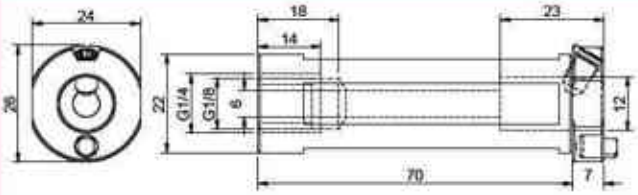
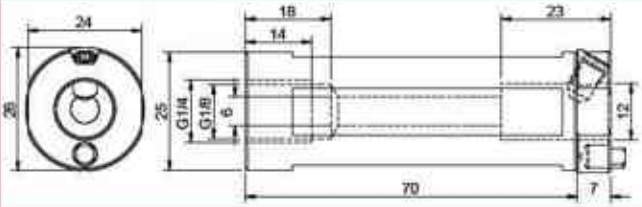
- Quick change, without having to remove the tool holder from the drill unit !
- Presetting is possible outside of the machine.
- With inner coolant.
- Ultra precise fitting of the interchangeable head. Rigid fixation.
- Different tool holder diameters available : 20 mm, 22 mm, 25 mm and 3/4".
- Several types of interchangeable heads available:
  - ER16M collet.
  - inserts types 040line (040R) and ISOline (CC09R, DC11R and VC11R).

Vorteile des modulares Systems

- Schnellwechselsystem: Es ist nicht nötig, den Grundhalter vom Bohrapparat zu entfernen !
- Voreinstellung ist ausserhalb der Maschine möglich.
- Mit Innenkühlung.
- Hochgenaue Positionierung des Wechselkopfes. Passgenaue, starre Befestigung.
- Verschiedene verfügbare Durchmesser der Werkzeugaufnahmen: 20 mm, 22 mm, 25 mm und 3/4".
- Mehrere verfügbare Wechselkopftypen:
  - ER16M Spannzange.
  - Wendeplatte Type 040line (040R) und ISOline (CC09R, DC11R und VC11R).

Avantages du système modulaire

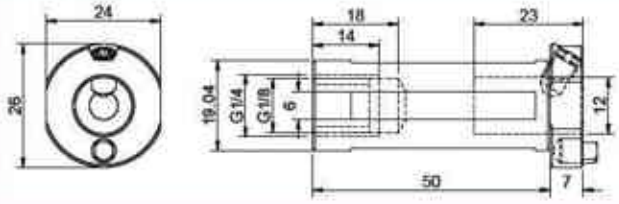
- Changement rapide sans avoir besoin de sortir le porte-outil de l'unité de perçage !
- Préréglage possible en dehors de la machine.
- Avec arrosage intégré.
- Ajustement ultra précis de la tête interchangeable. Fixation rigide.
- Différents diamètres de porte-outils disponibles: 20 mm, 22 mm, 25 mm und 3/4".
- Plusieur types de têtes interchangeables disponibles:
  - pince de type ER16M.
  - plaquettes de type 040line (040R) et ISOline (CC09R, DC11R et VC11R).

	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	 Shaft Ø 20 mm, length 70 mm, with inner coolant* Schaft Ø 20 mm, Länge 70 mm, mit Innenkühlung* Queue Ø 20 mm, longueur 70 mm, avec arrosage intégré*	QCD12S 2070 IK
	 Shaft Ø 20 mm, length 150 mm, with inner coolant* Schaft Ø 20 mm, Länge 150 mm, mit Innenkühlung* Queue Ø 20 mm, longueur 150 mm, avec arrosage intégré*	QCD12S 20150 IK
	 Shaft Ø 22 mm, length 70 mm, with inner coolant* Schaft Ø 22 mm, Länge 70 mm, mit Innenkühlung* Queue Ø 22 mm, longueur 70 mm, avec arrosage intégré*	QCD12S 2270 IK
	 Shaft Ø 25 mm, length 70 mm, with inner coolant* Schaft Ø 25 mm, Länge 70 mm, mit Innenkühlung* Queue Ø 25 mm, longueur 70 mm, avec arrosage intégré*	QCD12S 2570 IK

* *Hydraulic connection G1/4". Hydraulic reduction connector from G1/4" to G1/8" included.*
Hydraulic connector sold separately. See the «Hydraulic connectors» documentation for further information.

* *Hydraulikanschluss G1/4". Inklusive Hydraulik Reduzierung von G1/4" auf G1/8".*
Hydraulikanschluss separat erhältlich. Siehe die Dokumentation «Hydraulikanschlüsse» für weitere Informationen.

* *Connection hydraulique G1/4". Réduction hydraulique de G1/4" à G1/8" incluse. Raccord hydraulique vendu séparément.*
Voir la documentation «Raccords hydrauliques» pour plus d'informations.

	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	 Shaft Ø 3/4", length 50 mm, with inner coolant* Schaft Ø 3/4", Länge 50 mm, mit Innenkühlung* Queue Ø 3/4", longueur 50 mm, avec arrosage intégré*	QCD12S 3450 IK

* *Hydraulic connection G1/4". Hydraulic reduction connector from G1/4" to G1/8" included.*
Hydraulic connector sold separately. See the «Hydraulic connectors» documentation for further information.

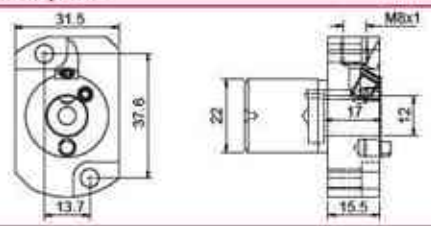
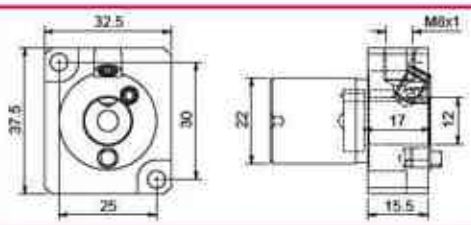
* *Hydraulikanschluss G1/4". Inklusive Hydraulik Reduzierung von G1/4" auf G1/8".*
Hydraulikanschluss separat erhältlich. Siehe die Dokumentation «Hydraulikanschlüsse» für weitere Informationen.

* *Connection hydraulique G1/4". Réduction hydraulique de G1/4" à G1/8" incluse. Raccord hydraulique vendu séparément.*
Voir la documentation «Raccords hydrauliques» pour plus d'informations.

** *Hydraulic connection M8x1. Hydraulic connector sold separately. See the «Hydraulic connectors» documentation for further information.*

** *Hydraulikanschluss M8x1. Hydraulikanschluss separat erhältlich. Siehe die Dokumentation «Hydraulikanschlüsse» für weitere Informationen.*

** *Connection hydraulique M8x1. Raccord hydraulique vendu séparément. Voir la documentation «Raccords hydrauliques» pour plus d'informations.*

	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
star 	 Shaft Ø 22 mm, for counter-operation machining on STAR machines, with inner coolant** Schaft Ø 22 mm, zur Rückseitenbearbeitung auf STAR Maschinen, mit Innenkühlung** Queue Ø 22 mm, pour usinage en contre-opération sur machines STAR, avec arrosage intégré**	QCD12S 22SR IK
Suitable for machines:	• SR10J (positions T22/T24) • SB16 type C, type E • SB20 R type E, type G, type N • SR20J/JN • ECAS12/20 • SR38 • SR20 IV • SR20J II • SR32J II (positions T21-T24 → overlaps positions T25-T28).	
Passend für Machinen:	• SR10J (Positionen T22/T24) • SB16 Typ C, Typ E • SB20 R Typ E, Typ G, Typ N • SR20J/JN • ECAS12/20 • SR38 • SR20 IV • SR20J II • SR32J II (Positionen T21-T24 → verbaut Positionen T25-T28).	
Convient aux machines:	• SR10J (positions T22/T24) • SB16 type C, type E • SB20 R type E, type G, type N • SR20J/JN • ECAS12/20 • SR38 • SR20 IV • SR20J II • SR32J II (positions T21-T24 → chevauche les positions T25-T28).	
star 	 Shaft Ø 22 mm, for counter-operation machining on STAR machines, with inner coolant** Schaft Ø 22 mm, zur Rückseitenbearbeitung auf STAR Maschinen, mit Innenkühlung ** Queue Ø 22 mm, pour usinage en contre-opération sur machines STAR, avec arrosage intégré**	QCD12S 22SW IK
Suitable for machines:	• SB12R • SB20R • SR20R IV • SR20J II • SV20R • SW20 • SW12R II • SR32J II • SR38.	
Passend für Machinen:	• SB12R • SB20R • SR20R IV • SR20J II • SV20R • SW20 • SW12R II • SR32J II • SR38.	
Convient aux machines:	• SB12R • SB20R • SR20R IV • SR20J II • SV20R • SW20 • SW12R II • SR32J II • SR38.	

* *Hydraulic connection G1/4". Hydraulic reduction connector from G1/4" to G1/8" included.*
Hydraulic connector sold separately. See the «Hydraulic connectors» documentation for further information.

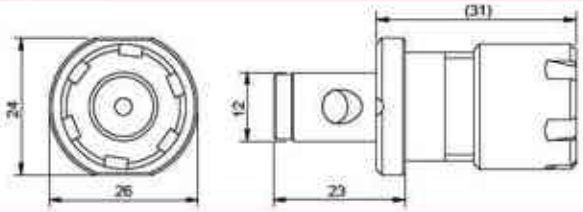
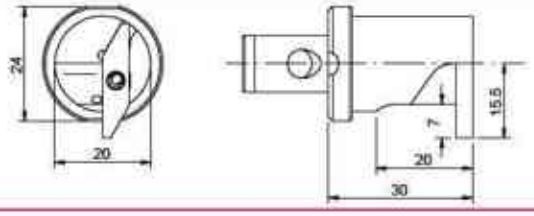
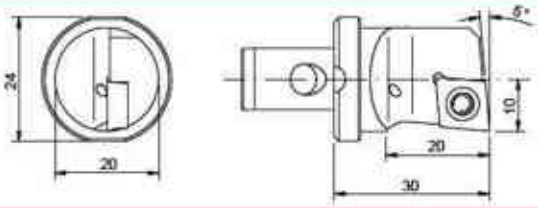
* *Hydraulikanschluss G1/4". Inklusive Hydraulik Reduzierung von G1/4" auf G1/8".*
Hydraulikanschluss separat erhältlich. Siehe die Dokumentation «Hydraulikanschlüsse» für weitere Informationen.

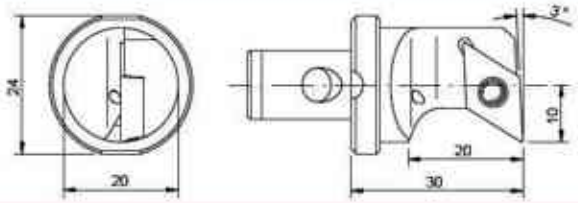
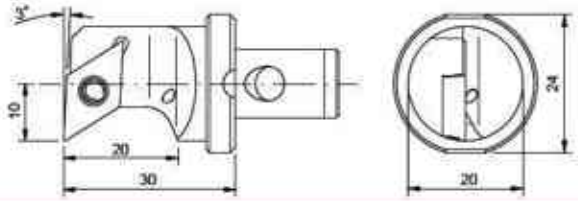
* *Connection hydraulique G1/4". Réduction hydraulique de G1/4" à G1/8" incluse. Raccord hydraulique vendu séparément.*
Voir la documentation «Raccords hydrauliques» pour plus d'informations.

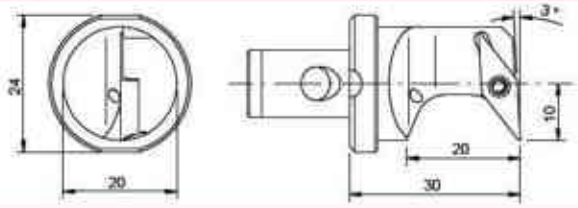
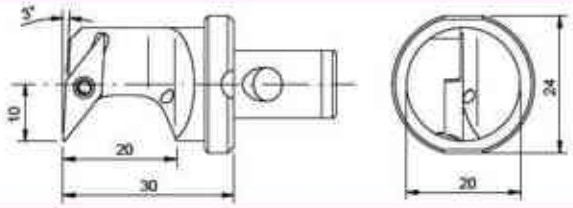
** *Hydraulic connection M8x1. Hydraulic connector sold separately. See the «Hydraulic connectors» documentation for further information.*

** *Hydraulikanschluss M8x1. Hydraulikanschluss separat erhältlich. Siehe die Dokumentation «Hydraulikanschlüsse» für weitere Informationen.*

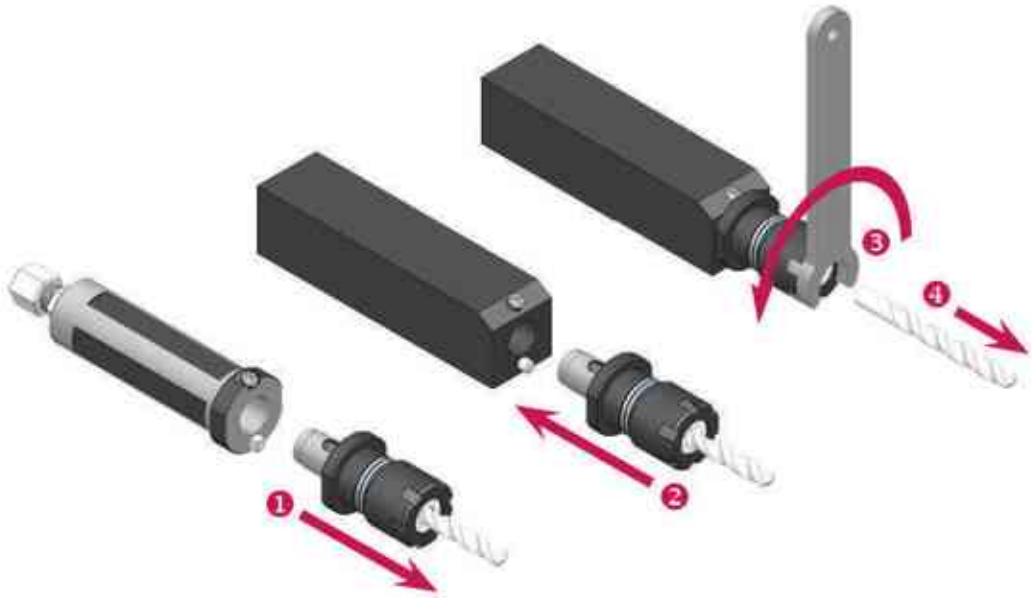
** *Connection hydraulique M8x1. Raccord hydraulique vendu séparément. Voir la documentation «Raccords hydrauliques» pour plus d'informations.*

	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	 Interchangeable head, type ER16M collet, with inner coolant *Please see the note on page 10* Wechselkopf, Typ ER16M Spannzange, mit Innenkühlung *Bitte beachten Sie den Hinweis auf Seite 10* Tête interchangeable, type pince ER16M, avec arrosage intégré *Veuillez prendre note de la remarque en page 10*	QCD12H ER16M IK
	 Interchangeable head, type 040line 040R insert, with inner coolant Wechselkopf, Typ 040line 040R Wendeplatte, mit Innenkühlung Tête interchangeable, type plaquette 040line 040R, avec arrosage intégré	QCD12H 040R IK
	 Interchangeable head, type ISOline CC09R insert, with inner coolant Wechselkopf, Typ ISOline CC09R Wendeplatte, mit Innenkühlung Tête interchangeable, type plaquette ISOline CC09R, avec arrosage intégré	QCD12H CC09R IK

	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	 Interchangeable head, type ISOline DC11R insert, with inner coolant Wechselkopf, Typ ISOline DC11R Wendeplatte, mit Innenkühlung Tête interchangeable, type plaquette ISOline DC11R, avec arrosage intégré	QCD12H DC11R IK
	 Interchangeable head, type ISOline DC11L insert, with inner coolant Wechselkopf, Typ ISOline DC11L Wendeplatte, mit Innenkühlung Tête interchangeable, type plaquette ISOline DC11L, avec arrosage intégré	QCD12H DC11L IK

	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	 Interchangeable head, type ISOline VC11R insert, with inner coolant Wechselkopf, Typ ISOline VC11R Wendeplatte, mit Innenkühlung Tête interchangeable, type plaquette ISOline VC11R, avec arrosage intégré	QCD12H VC11R IK
	 Interchangeable head, type ISOline VC11L insert, with inner coolant Wechselkopf, Typ ISOline VC11L Wendeplatte, mit Innenkühlung Tête interchangeable, type plaquette ISOline VC11L, avec arrosage intégré	QCD12H VC11L IK

	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	Accessory for tool's replacement Used to hold the head of the tool to facilitate the loosening of the nut. **Zubehör zum Wechseln des Werkzeugs** Einfaches Einlegen des Schnellwechselkopfes und Lösen der Mutter. **Accessoire pour le changement d'outil** Permet de tenir la tête de l'outil afin de faciliter le desserrage de l'écrou.	QCD12A 2525



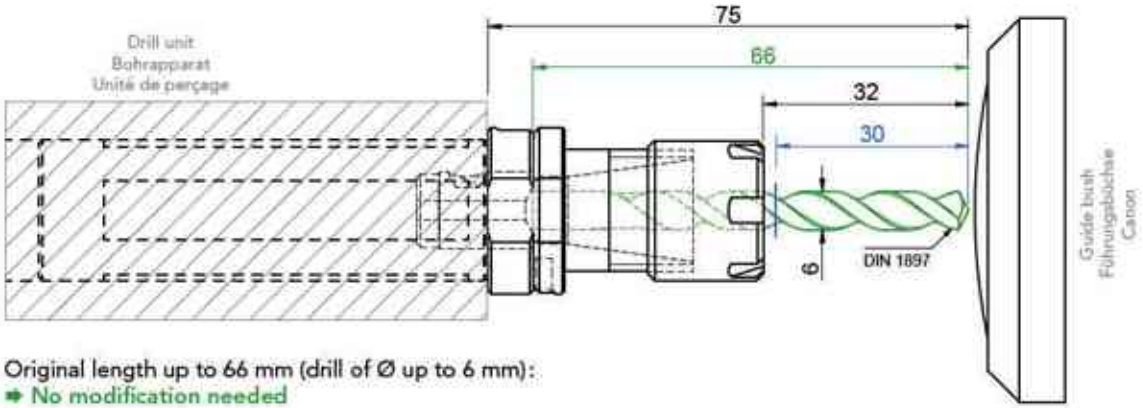
	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	Torque screwdriver (fixed setting 5 Nm) Recommended for an optimal control of the tightening Drehmoment-Schraubendreher (fest eingestellt 5 Nm) Empfohlen für eine optimale Drehmoment-Kontrolle Tournevis dynamométrique (couple fixe 5 Nm) Recommandé pour un contrôle optimal du serrage	100-10
	Bit Torx 20 for torque screwdriver For the tightening of the interchangeable heads Einsatz Torx 20 für Drehmoment-Schraubendreher Zum Spannen des Wechselkopfes Embout Torx 20 pour tournevis dynamométrique Pour le serrage des têtes interchangeables	100-12
	Standard screwdriver Torx 20 Standard Schraubendreher Torx 20 Tournevis standard Torx 20	100-9
	Basic key Torx 20 Einfacher Schlüssel Torx 20 Clé simple Torx 20	100-15
	Replacement screw Torx 20 for shafts Ersatzschraube Torx 20 für den Schaft Vis de remplacement Torx 20 pour queues	001-10
	Replacement reduction for hydraulic connector from G1/4" to G1/8" Ersatz- Hydraulik Reduzierung von G1/4" auf G1/8" Réduction hydraulique de G1/4" à G1/8" de remplacement	RED G1/4" - G1/8"
	Replacement screw for head 040line Ersatzschraube für Kopf 040line Vis de remplacement pour tête 040line	001-2
	Replacement screw for heads ISOline CC09 and DC11 Ersatzschraube für Köpfe ISOline CC09 und DC11 Vis de remplacement pour têtes ISOline CC09 et DC11	100-21
	Replacement screw for head ISOline VC11 Ersatzschraube für Kopf ISOline VC11 Vis de remplacement pour tête ISOline VC11	001-7

Quick change diameter

☞ On star machines, in order to avoid any crash with the guide bush, the length of the drills used with the «Quick change diameter» system shouldn't exceed 66 mm. The drills DIN 1897 must be shortened according to the information shown below. The maximum depth of drill is 30 mm.

☞ Um eine Kollision auf den star-Maschinen zu vermeiden, dürfen die Spiralbohrer eine Länge von maximal 66 mm nicht überschreiten. Spiralbohrer ab Ø 6 mm müssen gemäss untenstehenden Informationen eingekürzt werden. Die maximale Bohrtiefe beträgt 30 mm.

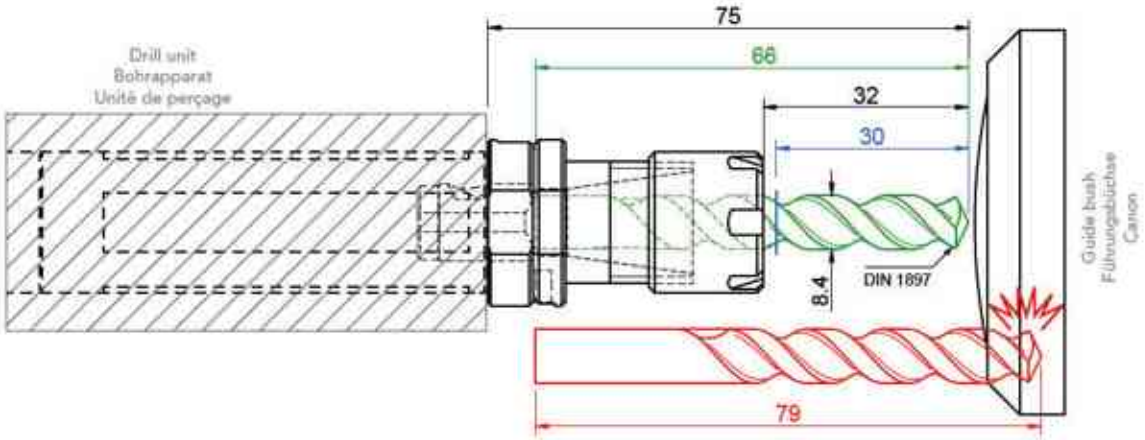
☞ Sur machines star, afin d'éviter toute collision avec le canon, la longueur des mèches utilisées sur le système Quick change diameter ne doit pas dépasser 66 mm. Les mèches DIN 1897 doivent être raccourcies selon les informations indiquées ci-dessous. La profondeur maximum de perçage est de 30 mm.



Original length up to 66 mm (drill of Ø up to 6 mm):
➡ No modification needed

Originallänge bis maximal 66 mm (Spiralbohrer bis max Ø 6 mm):
➡ Keine Modifikation nötig

Longueur originale jusqu'à 66 mm (mèche de Ø jusqu'à 6 mm):
➡ Pas de modification nécessaire



Original length longer than 66 mm (drill of Ø larger than 6 mm):
➡ The drill must be shortened to 66 mm !

Originallänge grösser als 66 mm (Spiralbohrer ab Ø 6 mm):
➡ Spiralbohrer auf eine maximale Länge von 66 mm einkürzen !

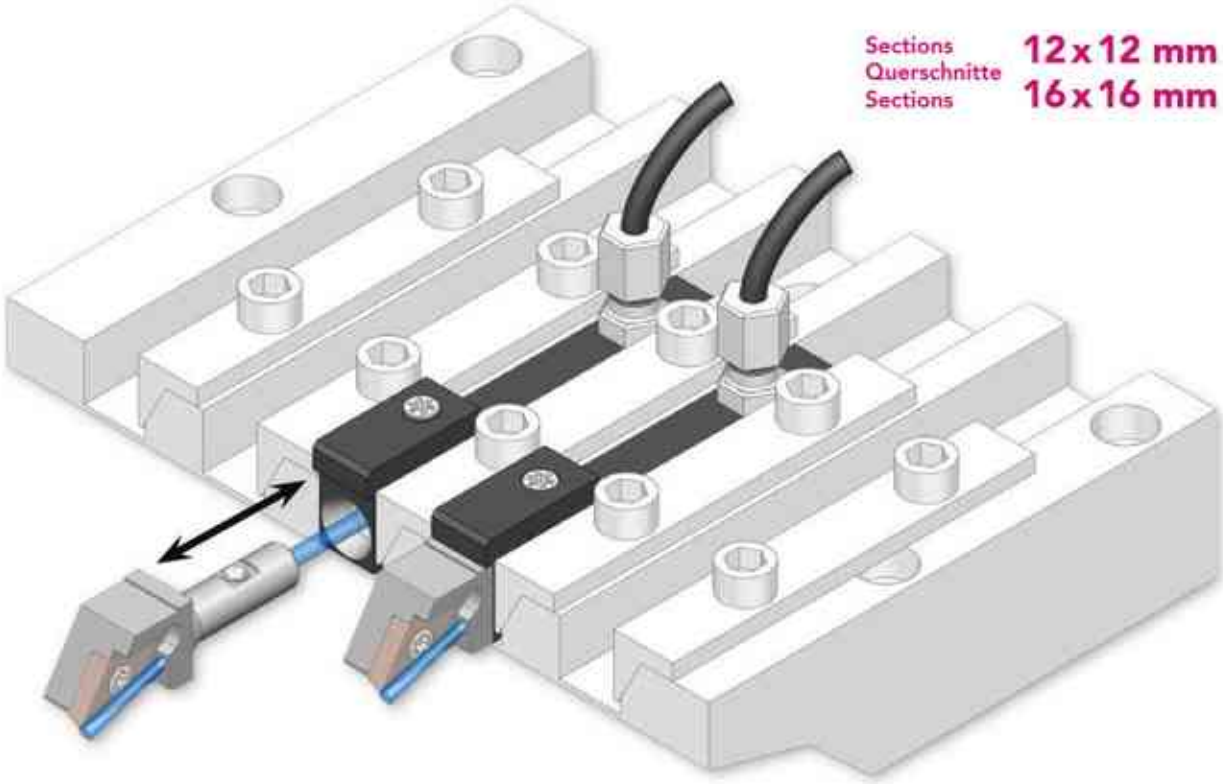
Longueur originale supérieure à 66 mm (mèche de Ø supérieur à 6 mm):
➡ Raccourcir la mèche à 66 mm !

Modular tool holders system with inner coolant
Modulares Werkzeugsystem mit Innenkühlung
Système modulaire de porte-outils avec arrosage intérieur

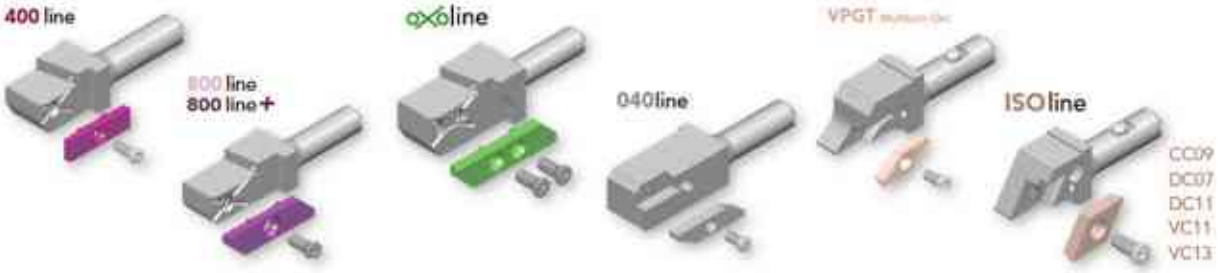
Quick change, without having to remove the tool holder from the gang !
Presetting is possible outside of the machine.

Schnellwechselsystem: Es ist nicht nötig, den Grundhalter vom Werkzeugträger zu entfernen !
Voreinstellung ist ausserhalb der Maschine ist möglich.

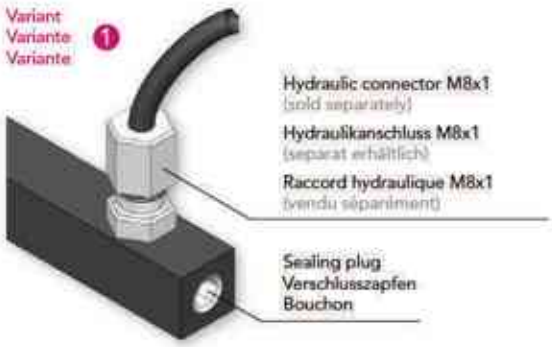
Changement rapide sans avoir besoin de sortir le porte-outil du peigne !
Préréglage possible en dehors de la machine.

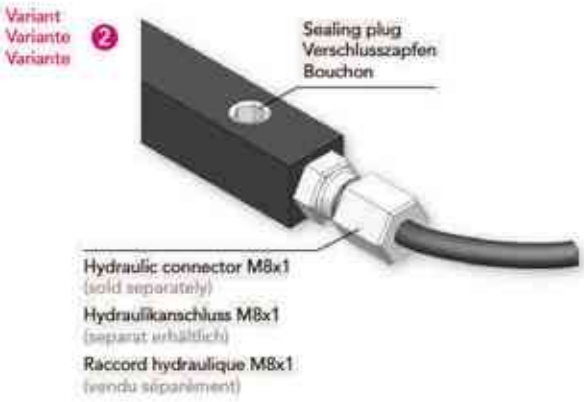


Available for different types of inserts
Für verschiedene Wendeplattentypen verfügbar
Disponible pour différents types de plaquettes



2 possible assemblies
2 Montagepositionen möglich
2 montages possibles





☞ *See the « Hydraulic connectors » documentation for further information.*

☞ *Siehe die Dokumentation « Hydraulikanschlüsse » für weitere Informationen.*

☞ *Voir la documentation « Raccords hydrauliques » pour plus d'informations.*

Quick change mini IK

	Description Bezeichnung Description	Article nr. Artikel Nr. Nº Article
	Shaft 12x12 mm, for right or left head, with internal coolant (Hydraulic connector sold separately) Schaft 12x12 mm, für rechten oder linken Kopf, mit Innenkühlung (Hydraulikanschluss separat erhältlich) Queue 12x12 mm, pour tête gauche ou droite, avec arrosage intégré (Raccord hydraulique vendu séparément)	QC8S 1212 IK
	Head 12x14 mm, right version, blank Kopf 12x14 mm, rechte Ausführung, Rohling Tête 12x14 mm, exécution à droite, ébauche	QC8H 1214 EB IK
	Head 12x14 mm, right version, type 040line, with internal coolant Kopf 12x14 mm, rechte Ausführung, Typ 040line, mit Innenkühlung Tête 12x14 mm, exécution à droite, type 040line, avec arrosage intégré	QC8H 012R IK
	Head 12x14 mm, right version, type 400line, with internal coolant Kopf 12x14 mm, rechte Ausführung, Typ 400line, mit Innenkühlung Tête 12x14 mm, exécution à droite, type 400line, avec arrosage intégré	QC8H 412R IK
	Head 12x14 mm, right version, type 800line, with internal coolant Kopf 12x14 mm, rechte Ausführung, Typ 800line, mit Innenkühlung Tête 12x14 mm, exécution à droite, type 800line, avec arrosage intégré	QC8H 812R IK
	Head 12x14 mm, right version, type OXOline 1000, with internal coolant Kopf 12x14 mm, rechte Ausführung, Typ OXOline 1000, mit Innenkühlung Tête 12x14 mm, exécution à droite, type OXOline 1000, avec arrosage intégré	QC8H 1012R IK
	Head 12x14 mm, right version, type Multiturn Dec VPGT, with inner coolant Kopf 12x14 mm, rechte Ausführung, Typ Multiturn Dec VPGT, mit Innenkühlung Tête 12x14 mm, exécution à droite, type Multiturn Dec VPGT, avec arrosage intégré	QC8H VPGT 12R IK

Quick change mini IK

	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	Head 12x14 mm, right version, type ISOline CC09, with internal coolant Kopf 12x14 mm, rechte Ausführung, Typ ISOline CC09, mit Innenkühlung Tête 12x14 mm, exécution à droite, type ISOline CC09, avec arrosage intégré	QC8H CC09 12R IK
	Head 10x14 mm, right version, type ISOline DC07, with internal coolant Kopf 10x14 mm, rechte Ausführung, Typ ISOline DC07, mit Innenkühlung Tête 10x14 mm, exécution à droite, type ISOline DC07, avec arrosage intégré	QC8H DC07 12R IK
	Head 12x14 mm, right version, type ISOline DC11, with internal coolant Kopf 12x14 mm, rechte Ausführung, Typ ISOline DC11, mit Innenkühlung Tête 12x14 mm, exécution à droite, type ISOline DC11, avec arrosage intégré	QC8H DC11 12R IK
	Head 12x14 mm, right version, type ISOline VC11, with internal coolant Kopf 12x14 mm, rechte Ausführung, Typ ISOline VC11, mit Innenkühlung Tête 12x14 mm, exécution à droite, type ISOline VC11, avec arrosage intégré	QC8H VC11 12R IK
	Head 12x14 mm, right version, type ISOline VC13, with internal coolant Kopf 12x14 mm, rechte Ausführung, Typ ISOline VC13, mit Innenkühlung Tête 12x14 mm, exécution à droite, type ISOline VC13, avec arrosage intégré	QC8H VC13 12R IK

Quick change mini IK

	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	Shaft 16x16 mm, for right or left head, with internal coolant (Hydraulic connector sold separately) Schaft 16x16 mm, für rechten oder linken Kopf, mit Innenkühlung (Hydraulikanschluss separat erhältlich) Queue 16x16 mm, pour tête gauche ou droite, avec arrosage intégré* (Raccord hydraulique vendu séparément)	QC8S 1616 IK
	Head 16x16 mm, blank Kopf 16x16 mm, Rohling Tête 16x16 mm, ébauche	QC8H 1616 EB IK
	Head 16x16 mm, right version, type 040line, with internal coolant Kopf 16x16 mm, rechte Ausführung, Typ 040line, mit Innenkühlung Tête 16x16 mm, exécution à droite, type 040line, avec arrosage intégré	QC8H 016R IK
	Head 16x16 mm, right version, type OXOline 1000, with internal coolant Kopf 16x16 mm, rechte Ausführung, Typ OXOline 1000, mit Innenkühlung Tête 16x16 mm, exécution à droite, type OXOline 1000, avec arrosage intégré	QC8H 1016R IK
	Head 16x16 mm, right version, type Multiturn Dec VPGT, with inner coolant Kopf 16x16 mm, rechte Ausführung, Typ Multiturn Dec VPGT, mit Innenkühlung Tête 16x16 mm, exécution à droite, type Multiturn Dec VPGT, avec arrosage intégré	QC8H VPGT 16R IK
	Head 16x16 mm, right version, type ISOline CC09, with inner coolant Kopf 16x16 mm, rechte Ausführung, Typ ISOline CC09, mit Innenkühlung Tête 16x16 mm, exécution à droite, type ISOline CC09, avec arrosage intégré	QC8H CC09 16R IK
	Head 16x16 mm, right version, type ISOline DC07, with internal coolant Kopf 16x16 mm, rechte Ausführung, Typ ISOline DC07, mit Innenkühlung Tête 16x16 mm, exécution à droite, type ISOline DC07, avec arrosage intégré	QC8H DC07 16R IK

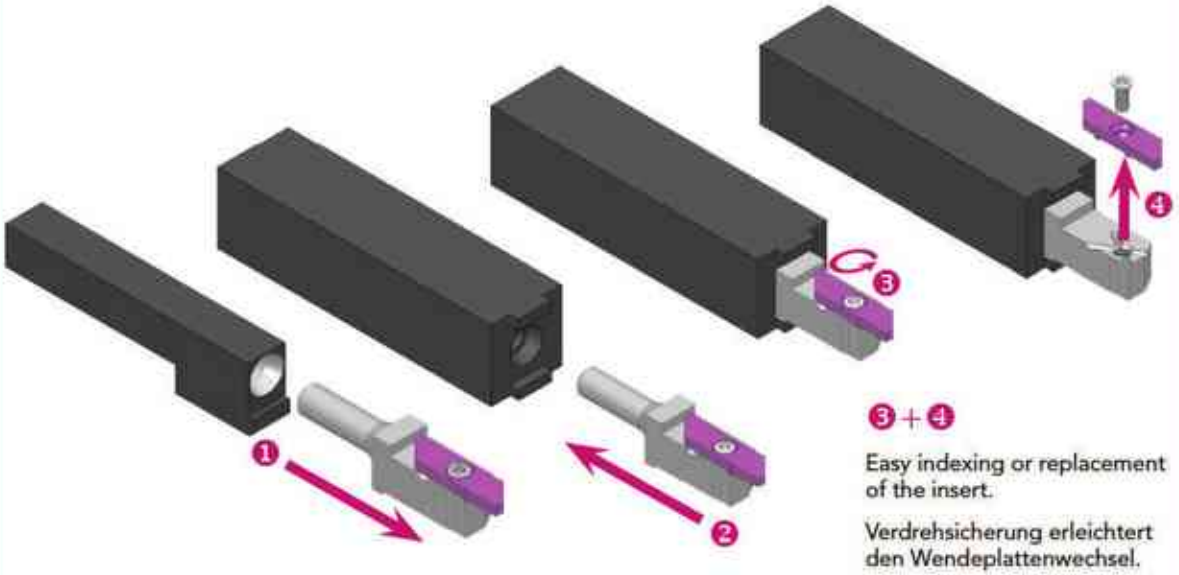
Quick change mini IK

	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	Head 16x16 mm, right version, type ISOline DC11, with internal coolant Kopf 16x16 mm, rechte Ausführung, Typ ISOline DC11, mit Innenkühlung Tête 16x16 mm, exécution à droite, type ISOline DC11, avec arrosage intégré	QC8H DC11 16R IK
	Head 16x16 mm, neutral version, type ISOline DC11, with internal coolant Kopf 16x16 mm, neutrale Ausführung, Typ ISOline DC11, mit Innenkühlung Tête 16x16 mm, exécution neutre, type ISOline DC11, avec arrosage intégré	QC8H DC11 16N IK
	Head 16x16 mm, right version, type ISOline VC11, with internal coolant Kopf 16x16 mm, rechte Ausführung, Typ ISOline VC11, mit Innenkühlung Tête 16x16 mm, exécution à droite, type ISOline VC11, avec arrosage intégré	QC8H VC11 16R IK
	Head 16x16 mm, right version, type ISOline VC13, with internal coolant Kopf 16x16 mm, rechte Ausführung, Typ ISOline VC13, mit Innenkühlung Tête 16x16 mm, exécution à droite, type ISOline VC13, avec arrosage intégré	QC8H VC13 16R IK

	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	Torque screwdriver (fixed setting 5 Nm) Recommended for an optimal control of the tightening of the interchangeable heads on tool holders 12x12 mm and 16x16 mm **Drehmoment-Schraubendreher (fest eingestellt 5 Nm)** Empfohlen für eine optimale Drehmoment-Kontrolle der wechselbaren Köpfe an den Werkzeughaltern 12x12 mm und 16x16 mm **Tournevis dynamométrique (couple fixe 5 Nm)** Recommandé pour un contrôle optimal du serrage des têtes interchangeables sur porte-outils 12x12 mm et 16x16 mm	100-10
	Hexagon bit 5 mm for torque screwdriver For the tightening of wedges **Sechskant-Einsatz 5 mm für Drehmoment-Schraubendreher** Zum Spannen von Werkzeughalter-Klemmung **Embout 6 pans 5 mm pour tournevis dynamométrique** Pour le serrage des cales 	100-13
	Standard screwdriver Torx 20 Standard Schraubendreher Torx 20 Tournevis standard Torx 20	100-9
	Basic key Torx 20 Einfacher Schlüssel Torx 20 Clé simple Torx 20	100-15

	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	Replacement screw Torx 20 for shafts Ersatzschraube Torx 20 für den Schaft Vis de remplacement Torx 20 pour queues	001-9
	Replacement screw for heads 040line Ersatzschraube für Köpfe 040line Vis de remplacement pour têtes 040line	001-2
	Replacement screw for heads VPGT, ISOline DC07 and VC11 Ersatzschraube für Köpfe VPGT, ISOline DC07 und VC11 Vis de remplacement pour têtes VPGT, ISOline DC07 et VC11	001-7
	Replacement screw for heads OXOline 1000 Ersatzschraube für Köpfe OXOline 1000 Vis de remplacement pour têtes OXOline 1000	001-8
	Replacement screw for heads ISOline CC09 and DC11 (excepted QC8H DC11 12R IK and QC8H CC09 12R IK) Ersatzschraube für Köpfe ISOline CC09 und DC11 (ausser QC8H DC11 12R IK und QC8H CC09 12R IK) Vis de remplacement pour têtes ISOline CC09 et DC11 (exceptées QC8H DC11 12R IK et QC8H CC09 12R IK)	100-16
	Replacement screw for heads: QC8H DC11 12R IK and QC8H CC09 12R IK Ersatzschraube für Köpfe: QC8H DC11 12R IK und QC8H CC09 12R IK Vis de remplacement pour têtes: QC8H DC11 12R IK et QC8H CC09 12R IK	100-21

	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	Accessorie for insert's replacement Used to hold the head of the tool to facilitate the change of the insert. **Zubehör zum Wechseln der Wendeplatten** Einfaches Einlegen des Schnellwechselkopfes, erleichtert das Wechseln der Wendeplatte. **Accessoire pour le changement des plaquettes** Permet de tenir la tête de l'outil pour faciliter le changement de la plaquette.	QC8A 2525



3 + 4

Easy indexing or replacement of the insert.

Verdrehsicherung erleichtert den Wendeplattenwechsel.

Indexage ou remplacement de la plaquette facilité.

☞ To ensure a proper continuous «Quick change mini» system operation, Bimu recommends the monthly use of synthetic lubricant
Blaser Foodtec® SAS 100 - Oil H1 or equivalent.

☞ Um einen ordnungsgemäßen kontinuierlichen «Quick change mini» Systembetrieb zu gewährleisten, empfiehlt Bimu die monatliche Verwendung von synthetischen Schmiermittel *Blaser Foodtec® SAS 100 - Schmeröl H1* oder gleichwertig.

☞ Pour assurer un bon fonctionnement continu du système «Quick change mini», Bimu recommande l'utilisation mensuelle du lubrifiant synthétique *Blaser Foodtec® SAS 100 - Huile H1* ou d'un produit équivalent.

Modular tool holders system
Modulares Werkzeugsystem
Système modulaire de porte-outils

Sections
Querschnitte
Sections

10 x 12 mm
12 x 12 mm
16 x 16 mm

Quick change, without having to remove the tool holder from the gang !
Presetting is possible outside of the machine.

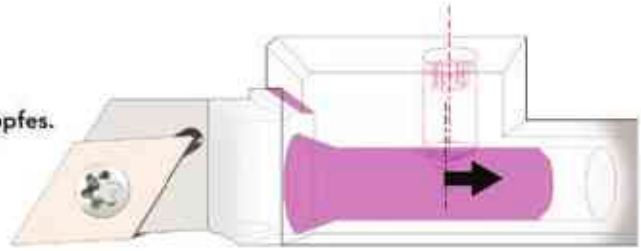
Schnellwechselsystem: Es ist nicht nötig, den Grundhalter vom Werkzeugträger zu entfernen !
Voreinstellung ist ausserhalb der Maschine möglich.

Changement rapide sans avoir besoin de sortir le porte-outil du peigne !
Préréglage possible en dehors de la machine.

Ultra precise fitting.
Rigid fixation.

Hochgenaue Positionierung des Wechselkopfes.
Passgenaue, Starre Befestigung.

Ajustement ultra précis.
Fixation rigide.



Tool holder section : 10x12, 12x12 and 16x16 mm.
Left and right inserts available.

Werkzeughalter Querschnitt : 10x12, 12x12 und 16x16 mm für linke und rechte Wendeplatten verfügbar.

Section de porte-outil 10x12, 12x12 ou 16x16 mm.
Plaquettes disponibles à gauche et à droite.

	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	Shaft 10x12 mm, for right or left head Schaft 10x12 mm, für rechten oder linken Kopf Queue 10x12 mm, pour tête gauche ou droite	QC8S 1010
	Head 10x14 mm, right version, blank Kopf 10x14 mm, rechte Ausführung, Rohling Tête 10x14 mm, exécution à droite, ébauche	QC8S 1014 EB IK
	Head 10x14 mm, right version, type 040line Kopf 10x14 mm, rechte Ausführung, Typ 040line Tête 10x14 mm, exécution à droite, type 040line	QC8H 010R
	Head 10x14 mm, left version, type 040line Kopf 10x14 mm, linke Ausführung, Typ 040line Tête 10x14 mm, exécution à gauche, type 040line	QC8H 010L
	Head 10x14 mm, left version, type 400line Kopf 10x14 mm, linke Ausführung, Typ 400line Tête 10x14 mm, exécution à gauche, type 400line	QC8H 410R
	Head 10x14 mm, right version, type 800line and 800line+ Kopf 10x14 mm, rechte Ausführung, Typ 800line and 800line+ Tête 10x14 mm, exécution à droite, type 800line et 800line+	QC8H 810R
	Head 10x14 mm, left version, type 800line and 800line+ Kopf 10x14 mm, linke Ausführung, Typ 800line und 800line+ Tête 10x14 mm, exécution à gauche, type 800line et 800line+	QC8H 810L
	Head 10x14 mm, right version, type OXOline 1000 Kopf 10x14 mm, rechte Ausführung, Typ OXOline 1000 Tête 10x14 mm, exécution à droite, type OXOline 1000	QC8H 1010R
	Head 10x14 mm, right version, type Multiturn Dec VPGT Kopf 10x14 mm, rechte Ausführung, Typ Multiturn Dec VPGT Tête 10x14 mm, exécution à droite, type Multiturn Dec VPGT	QC8H VPGT 10R
	Head 10x14 mm, right version, type ISOline CC06 Kopf 10x14 mm, rechte Ausführung, Typ ISOline CC06 Tête 10x14 mm, exécution à droite, type ISOline CC06	QC8H CC06 10R
	Head 10x14 mm, right version, type ISOline DC07 Kopf 10x14 mm, rechte Ausführung, Typ ISOline DC07 Tête 10x14 mm, exécution à droite, type ISOline DC07	QC8H DC07 10R

	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	Head 10x14 mm, right version, type ISOline DC11 Kopf 10x14 mm, rechte Ausführung, Typ ISOline DC11 Tête 10x14 mm, exécution à droite, type ISOline DC11	QC8H DC11 10R
	Head 10x14 mm, right version, type ISOline VC11 Kopf 10x14 mm, rechte Ausführung, Typ ISOline VC11 Tête 10x14 mm, exécution à droite, type ISOline VC11	QC8H VC11 10R
	Head 10x14 mm, left version, type ISOline VC11 Kopf 10x14 mm, linke Ausführung, Typ ISOline VC11 Tête 10x14 mm, exécution à gauche, type ISOline VC11	QC8H VC11 10L
	Head 10x14 mm, neutral version, type ISOline VC11 Kopf 10x14 mm, neutrale Ausführung, Typ ISOline VC11 Tête 10x14 mm, exécution neutre, type ISOline VC11	QC8H VC11 10N
	Head 10x14 mm, right version, type ISOline VC13 Kopf 10x14 mm, rechte Ausführung, Typ ISOline VC13 Tête 10x14 mm, exécution à droite, type ISOline VC13	QC8H VC13 10R

Quick change mini

	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	Shaft 12x12 mm, for right or left head Schaft 12x12 mm, für rechten oder linken Kopf Queue 12x12 mm, pour tête gauche ou droite	QC8S 1212
	Head 12x14 mm, right version, blank Kopf 12x14 mm, rechte Ausführung, Rohling Tête 12x14 mm, exécution à droite, ébauche	QC8H 1214 EB IK
	Head 12x14 mm, right version, type 040line Kopf 12x14 mm, rechte Ausführung, Typ 040line Tête 12x14 mm, exécution à droite, type 040line	QC8H 012R
	Head 12x12 mm, left version, type 040line Kopf 12x12 mm, linke Ausführung, Typ 040line Tête 12x12 mm, exécution à gauche, type 040line	QC8H 012L
	Head 12x14 mm, right version, type 140line Kopf 12x14 mm, rechte Ausführung, Typ 140line Tête 12x14 mm, exécution à droite, type 140line	QC8H 112R
	Head 12x14 mm, left version, type 140line Kopf 12x14 mm, linke Ausführung, Typ 140line Tête 12x14 mm, exécution à gauche, type 140line	QC8H 112L
	Head 12x14 mm, right version, type 400line Kopf 12x14 mm, rechte Ausführung, Typ 400line Tête 12x14 mm, exécution à droite, type 400line	QC8H 412R
	Head 12x14 mm, right version, type 500line Compatible with "Schwanog WEB-System" inserts Kopf 12x14 mm, rechte Ausführung, Typ 500line Verträglich mit "Schwanog WEB-System" Wendeplatten Tête 12x14 mm, exécution à droite, type 500line Compatible avec plaquettes "Schwanog WEB-System"	QC8H 512R
	Head 12x14 mm, right version, type 700line Kopf 12x14 mm, rechte Ausführung, Typ 700line Tête 12x14 mm, exécution à droite, type 700line	QC8H 712R
	Head 12x14 mm, right version, type 800line and 800line+ Kopf 12x14 mm, rechte Ausführung, Typ 800line and 800line+ Tête 12x14 mm, exécution à droite, type 800line et 800line+	QC8H 812R

	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	Head 12x14 mm, left version, type 800line and 800line+ Kopf 12x14 mm, linke Ausführung, Typ 800line and 800line+ Tête 12x14 mm, exécution à gauche, type 800line et 800line+	QC8H 812L
	Head 12x14 mm, right version, type OXOline 1000 Kopf 12x14 mm, rechte Ausführung, Typ OXOline 1000 Tête 12x14 mm, exécution à droite, type OXOline 1000	QC8H 1012R
	Head 12x14 mm, left version, type OXOline 1000 Kopf 12x14 mm, linke Ausführung, Typ OXOline 1000 Tête 12x14 mm, exécution à gauche, type OXOline 1000	QC8H 1012L
	Head 12x14 mm, left version, type OXOline 1100 Kopf 12x14 mm, linke Ausführung, Typ OXOline 1100 Tête 12x14 mm, exécution à gauche, type OXOline 1100	QC8H 1112L
	Head 12x14 mm, right version, type Multiturn Dec VPGT Kopf 12x14 mm, rechte Ausführung, Typ Multiturn Dec VPGT Tête 12x14 mm, exécution à droite, type Multiturn Dec VPGT	QC8H VPGT 12R
	Head 12x14 mm, left version, type Multiturn Dec VPGT Kopf 12x14 mm, linke Ausführung, Typ Multiturn Dec VPGT Tête 12x14 mm, exécution à gauche, type Multiturn Dec VPGT	QC8H VPGT 12L
	Head 12x14 mm, right version, type ISOline CC09 Kopf 12x14 mm, rechte Ausführung, Typ ISOline CC09 Tête 12x14 mm, exécution à droite, type ISOline CC09	QC8H CC09 12R
	Head 12x14 mm, right version, type ISOline DC07 Kopf 12x14 mm, rechte Ausführung, Typ ISOline DC07 Tête 12x14 mm, exécution à droite, type ISOline DC07	QC8H DC07 12R
	Head 12x14 mm, left version, type ISOline DC07 Kopf 12x14 mm, linke Ausführung, Typ ISOline DC07 Tête 12x14 mm, exécution à gauche, type ISOline DC07	QC8H DC07 12L
	Head 12x14 mm, right version, type ISOline DC11 Kopf 12x14 mm, rechte Ausführung, Typ ISOline DC11 Tête 12x14 mm, exécution à droite, type ISOline DC11	QC8H DC11 12R

	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	Head 12x14 mm, leftt version, type ISOline DC11 Kopf 12x14 mm, linke Ausführung, Typ ISOline DC11 Tête 12x14 mm, exécution à gauche, type ISOline DC11	QC8H DC11 12L
	Head 12x14 mm, neutral version, type ISOline DC11 Kopf 12x14 mm, neutrale Ausführung, Typ ISOline DC11 Tête 12x14 mm, exécution neutre, type ISOline DC11	QC8H DC11 12N
	Head 12x14 mm, right version, type ISOline ER16 Kopf 12x14 mm, rechte Ausführung, Typ ISOline ER16 Tête 12x14 mm, exécution à droite, type ISOline ER16	QC8H ER16 12R
	Head 12x14 mm, right version, type ISOline VC11 Kopf 12x14 mm, rechte Ausführung, Typ ISOline VC11 Tête 12x14 mm, exécution à droite, type ISOline VC11	QC8H VC11 12R
	Head 12x14 mm, left version, type ISOline VC11 Kopf 12x14 mm, linke Ausführung, Typ ISOline VC11 Tête 12x14 mm, exécution à gauche, type ISOline VC11	QC8H VC11 12L
	Head 12x14 mm, neutral version, type ISOline VC11 Kopf 12x14 mm, neutrale Ausführung, Typ ISOline VC11 Tête 12x14 mm, exécution neutre, type ISOline VC11	QC8H VC11 12N
	Head 12x14 mm, neutral version, type ISOline VC12 Kopf 12x14 mm, neutrale Ausführung, Typ ISOline VC12 Tête 12x14 mm, exécution neutre, type ISOline VC12	QC8H VC12 12R
	Head 12x14 mm, right version, type ISOline VC13 Kopf 12x14 mm, rechte Ausführung, Typ ISOline VC13 Tête 12x14 mm, exécution à droite, type ISOline VC13	QC8H VC13 12R

Quick change mini

	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	Shaft 16x16 mm, for right or left head Schaft 16x16 mm, für rechten oder linken Kopf Queue 16x16 mm, pour tête gauche ou droite	QC8S 1616
	Head 16x16 mm, blank Kopf 16x16 mm, Rohling Tête 16x16 mm, ébauche	QC8H 1616 EB IK
	Head 16x16 mm, right version, type 040line Kopf 16x16 mm, rechte Ausführung, Typ 040line Tête 16x16 mm, exécution à droite, type 040line	QC8H 016R
	Head 16x16 mm, right version, type 140line Kopf 16x16 mm, rechte Ausführung, Typ 140line Tête 16x16 mm, exécution à droite, type 140line	QC8H 116R
	Head 16x16 mm, left version, type 140line Kopf 16x16 mm, linke Ausführung, Typ 140line Tête 16x16 mm, exécution à gauche, type 140line	QC8H 116L
	Head 16x16 mm, right version, type 500line Compatible with "Schwanog WEB-System" inserts Kopf 16x16 mm, rechte Ausführung, Typ 500line Verträglich mit "Schwanog WEB-System" Wendeplatten Tête 16x16 mm, exécution à droite, type 500line Compatible avec plaquettes "Schwanog WEB-System"	QC8H 516R
	Head 16x16 mm, right version, type 700line Kopf 16x16 mm, rechte Ausführung, Typ 700line Tête 16x16 mm, exécution à droite, type 700line	QC8H 716R
	Head 16x16 mm, right version, type 800line and 800line+ Kopf 16x16 mm, rechte Ausführung, Typ 800line und 800line+ Tête 16x16 mm, exécution à droite, type 800line et 800line+	QC8H 816R
	Head 16x16 mm, left version, type 800line and 800line+ Kopf 16x16 mm, linke Ausführung, Typ 800line und 800line+ Tête 16x16 mm, exécution à gauche, type 800line et 800line+	QC8H 816L
	Head 16x16 mm, right version, type OXOline 1000 Kopf 16x16 mm, rechte Ausführung, Typ OXOline 1000 Tête 16x16 mm, exécution à droite, type OXOline 1000	QC8H 1016R

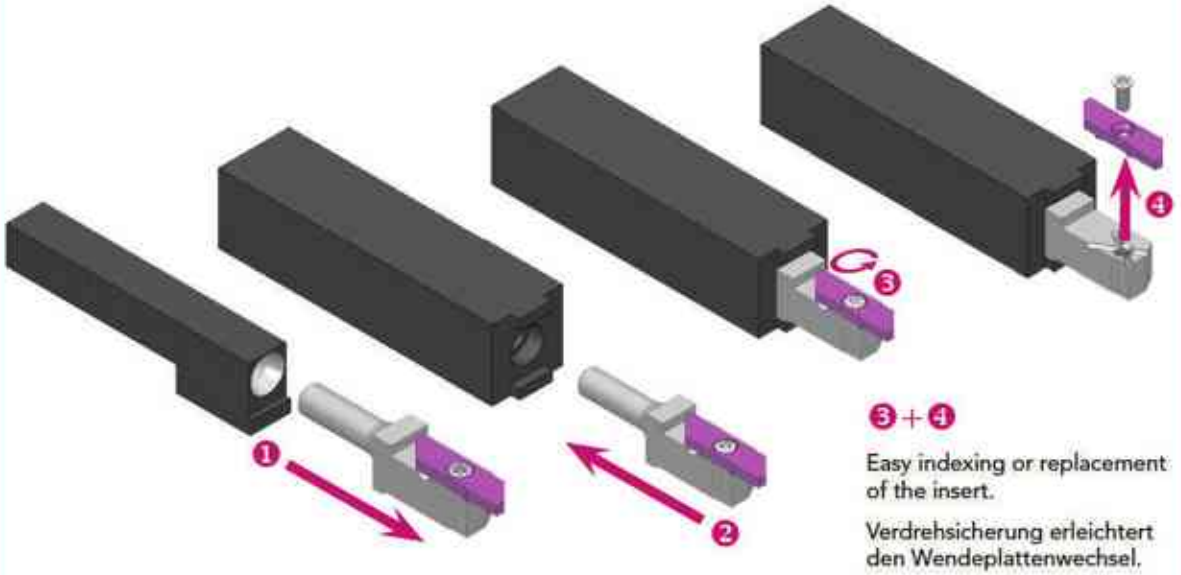
	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	Head 16x16 mm, left version, type OXOline 1000 Kopf 16x16 mm, linke Ausführung, Typ OXOline 1000 Tête 16x16 mm, exécution à gauche, type OXOline 1000	QC8H 1016L
	Head 16x16 mm, right version, type OXOline 1100 Kopf 16x16 mm, rechte Ausführung, Typ OXOline 1100 Tête 16x16 mm, exécution à droite, type OXOline 1100	QC8H 1116R
	Head 16x16 mm, left version, type OXOline 1100 Kopf 16x16 mm, linke Ausführung, Typ OXOline 1100 Tête 16x16 mm, exécution à gauche, type OXOline 1100	QC8H 1116L
	Head 16x16 mm, right version, type Multiturn Dec VPGT Kopf 16x16 mm, rechte Ausführung, Typ Multiturn Dec VPGT Tête 16x16 mm, exécution à droite, type Multiturn Dec VPGT	QC8H VPGT 16R
	Head 16x16 mm, right version, type ISOline CC09 Kopf 16x16 mm, rechte Ausführung, Typ ISOline CC09 Tête 16x16 mm, exécution à droite, type ISOline CC09	QC8H CC09 16R
	Head 16x16 mm, right version, type ISOline DC07 Kopf 16x16 mm, rechte Ausführung, Typ ISOline DC07 Tête 16x16 mm, exécution à droite, type ISOline DC07	QC8H DC07 16R
	Head 16x16 mm, neutral version, type ISOline DC11 Kopf 16x16 mm, neutrale Ausführung, Typ ISOline DC11 Tête 16x16 mm, exécution neutre, type ISOline DC11	QC8H DC11 16N
	Head 16x16 mm, right version, type ISOline DC11 Kopf 16x16 mm, rechte Ausführung, Typ ISOline DC11 Tête 16x16 mm, exécution à droite, type ISOline DC11	QC8H DC11 16R
	Head 16x16 mm, right version, type ISOline ER16 Kopf 16x16 mm, rechte Ausführung, Typ ISOline ER16 Tête 16x16 mm, exécution à droite, type ISOline ER16	QC8H ER16 16R
	Head 16x16 mm, right version, type ISOline VB11 Kopf 16x16 mm, rechte Ausführung, Typ ISOline VB11 Tête 16x16 mm, exécution à droite, type ISOline VB11	QC8H VB11 16R

	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	Head 16x16 mm, right version, type ISOline VC11 Kopf 16x16 mm, rechte Ausführung, Typ ISOline VC11 Tête 16x16 mm, exécution à droite, type ISOline VC11	QC8H VC11 16R
	Head 16x16 mm, left version, type ISOline VC11 Kopf 16x16 mm, linke Ausführung, Typ ISOline VC11 Tête 16x16 mm, exécution à gauche, type ISOline VC11	QC8H VC11 16L
	Head 16x16 mm, right version, type ISOline VC13 Kopf 16x16 mm, rechte Ausführung, Typ ISOline VC13 Tête 16x16 mm, exécution à droite, type ISOline VC13	QC8H VC13 16R

	Description Bezeichnung Description	Article nr. Artikel Nr. Nº Article
	Torque screwdriver (fixed setting 5 Nm) Recommended for an optimal control of the tightening of the interchangeable heads on tool holders 12x12 mm and 16x16 mm **Drehmoment-Schraubendreher (fest eingestellt 5 Nm)** Empfohlen für eine optimale Drehmoment-Kontrolle der wechselbaren Köpfe an den Werkzeughaltern 12x12 mm und 16x16 mm **Tournevis dynamométrique (couple fixe 5 Nm)** Recommandé pour un contrôle optimal du serrage des têtes interchangeables sur porte-outils 12x12 mm et 16x16 mm	100-10
	Torque screwdriver (fixed setting 2,2 Nm) Recommended for an optimal control of the tightening of the interchangeable heads on tool holder 10x12 mm **Drehmoment-Schraubendreher (fest eingestellt 2,2 Nm)** Empfohlen für eine optimale Drehmoment-Kontrolle der wechselbaren Köpfe am Werkzeughalter 10x12 mm **Tournevis dynamométrique (couple fixe 2,2 Nm)** Recommandé pour un contrôle optimal du serrage des têtes interchangeables sur porte-outil 10x12 mm	100-20
	Bit Torx 20 for torque screwdriver For the tightening of the interchangeable heads **Einsatz Torx 20 für Drehmoment-Schraubendreher** Zum Spannen des Wechselkopfes **Embout Torx 20 pour tournevis dynamométrique** Pour le serrage des têtes interchangeables	100-12
	Hexagon bit 5 mm for torque screwdriver For the tightening of wedges **Sechskant-Einsatz 5 mm für Drehmoment-Schraubendreher** Zum Spannen von Werkzeughalter-Klemmung **Embout 6 pans 5 mm pour tournevis dynamométrique** Pour le serrage des cales	100-13
	Standard screwdriver Torx 20 **Standard Schraubendreher Torx 20** **Tournevis standard Torx 20**	100-9
	Basic key Torx 20 **Einfacher Schlüssel Torx 20** **Clé simple Torx 20**	100-15

	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	Replacement screw Torx 20 for shafts Ersatzschraube Torx 20 für den Schaft Vis de remplacement Torx 20 pour queues	001-9
	Replacement screw for heads 040line Ersatzschraube für Köpfe 040line Vis de remplacement pour têtes 040line	001-2
	Replacement screw for heads 400line and ISOline VC13 Ersatzschraube für Köpfe 400line und ISOline VC13 Vis de remplacement pour têtes 400line et ISOline VC13	001-4
	Replacement screw for heads 500line Ersatzschraube für Köpfe 500line Vis de remplacement pour têtes 500line	100-3
	Replacement screw for heads 700line and ISOline ER16 Ersatzschraube für Köpfe 700line und ISOline ER16 Vis de remplacement pour têtes 700line et ISOline ER16	100-2
	Replacement screw for heads 800line and 800line+ Ersatzschraube für Köpfe 800line und 800line+ Vis de remplacement pour têtes 800line et 800line+	100-4
	Replacement screw for heads OXOline 1000 and OXOline 1100 Ersatzschraube für Köpfe OXOline 1000 und OXOline 1100 Vis de remplacement pour têtes OXOline 1000 et OXOline 1100	001-8
	Replacement screw for heads VPGT, ISOline CC06, DC07, VC11 and VC12 Ersatzschraube für Köpfe VPGT, ISOline CC06, DC07, VC11 und VC12 Vis de remplacement pour têtes VPGT, ISOline CC06, DC07, VC11 et VC12	001-7
	Replacement screw for heads ISOline CC09 and DC11 (excepted QC8H DC11 10R) Ersatzschraube für Köpfe ISOline CC09 und DC11 (ausser QC8H DC11 10R) Vis de remplacement pour têtes ISOline CC09 et DC11 (exceptée QC8H DC11 10R)	100-16
	Replacement screw for head QC8H DC11 10R Ersatzschraube für Köpf QC8H DC11 10R Vis de remplacement pour tête QC8H DC11 10R	100-21

	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article	Price CHF Preis CHF Prix CHF
	Accessorie for insert's replacement Used to hold the head of the tool to facilitate the change of the insert. **Zubehör zum Wechseln der Wendeplatten** Einfaches Einlegen des Schnellwechselkopfes, erleichtert das Wechseln der Wendeplatte. **Accessoire pour le changement des plaquettes** Permet de tenir la tête de l'outil pour faciliter le changement de la plaquette.	QC8A 2525	35.-



3 + 4

Easy indexing or replacement of the insert.

Verdrehsicherung erleichtert den Wendeplattenwechsel.

Indexage ou remplacement de la plaquette facilité.

☞ To ensure a proper continuous «Quick change mini» system operation, Bimu recommends the monthly use of synthetic lubricant
Blaser Foodtec® SAS 100 - Oil H1 or equivalent.

☞ Um einen ordnungsgemäßen kontinuierlichen «Quick change mini» Systembetrieb zu gewährleisten, empfiehlt Bimu die monatliche Verwendung von synthetischen Schmiermittel *Blaser Foodtec® SAS 100 - Schmeröl H1* oder gleichwertig.

☞ Pour assurer un bon fonctionnement continu du système «Quick change mini», Bimu recommande l'utilisation mensuelle du lubrifiant synthétique *Blaser Foodtec® SAS 100 - Huile H1* ou d'un produit équivalent.

Revolving-Ends Collets for barfeeders

Tools for automatic lathe and CNC machines

Bimu
cutting tools & accessories

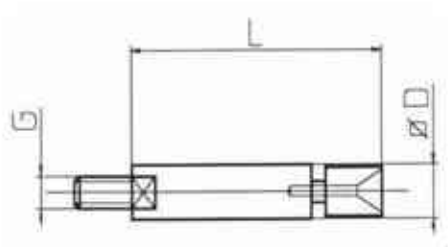
Bimu SA
cutting tools
& accessories

case postale 50
rue du Quai 10
CH-2710 Tavannes

e. info@bimu.ch
i. www.bimu.ch

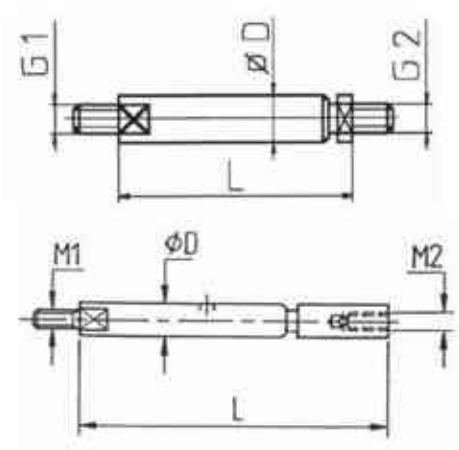
t. +41 32 482 60 50
f. +41 32 482 60 59

Revolving End-Pieces for Pushrods



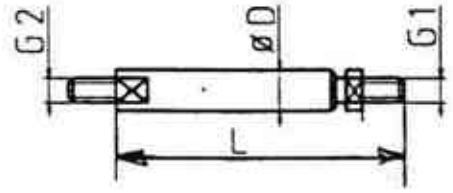
Art. No.	D	L	G	
ESB 0450	4.5	40.5	M3.5	
ESB 0700	7.0	40.5	M5	
ESB 0750	7.5	43	M5	
ESB 1000	10.0	52	M6	
ESB 1100	11.0	49	M6	
ESB 1200	12.0	48	M6	
ESB 1400	14.0		M8	
ESB 1600	16.0	80	M10	
ESB 2000	20.0	80	M10	

Revolving End-Pieces for Tornos Barfeeders / Barboy



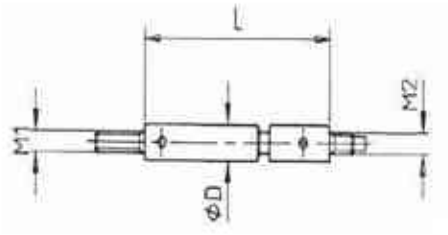
Art. No.	D	L	G1	G2
ERT 0450	4.5	54	M3	M3
ERT 0550	5.5	54	M3	M3
ERT 0700	7.0	45.5	M4	M5
ERT 0750	7.5	45.5	M4	M5
ERT 0850	8.5	45.5	M5	M5
ERT 1050	10.5	51	M6	M6
ERT 1200	12.0	51	M6	M6
ERT 1500	15.0	70	M7	M6
ERT 2000	20.0	72	M7	M8

Revolving End-Pieces for Caddie Barfeeders



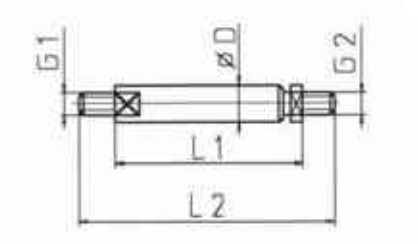
Art. No.	D	L	G1	G2
ERC 0950	9.5	72	M6	M6
ERC 1050	10.5	72	M6	M6
ERC 1250	12.5	72	M6	M6
ERC 1500	15.0	92	M7	M6
ERC 1650	16.5	92	M8	M8

Revolving End-Pieces for Multibar Bechler Barfeeders



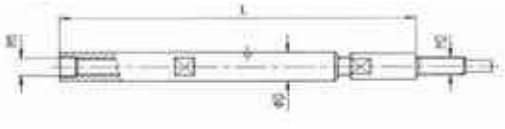
Art. No.	D	L	M1	M2
ERB 0450	4.5	37.5	M3	M2.5
ERB 0500	5	58.5	M3.5	M3
ERB 0550	5.5	37.5	M4	M3.5

Revolving End-Pieces for Multibar Bechler and Béchet



Art. No.	D	L1	L2	G1	G2
ERB 0700	7	38.5	60	M5	M4
ERB 0700	7	61	83	M5	M4
ERB 1000	10	59	86	M6	M5
ERB 1000	10	75	102	M6	M5
ERB 1200	12	64	90	M8/M6	M5
ERB 1200	12	94	122	M8/M6	M5
ERB 1600	16	84		M12	M6
ERB 2000	20	84		M16	M8x1

Revolving End-Pieces for IEMCA Barfeeders

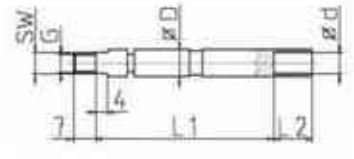


Art. No.	D	L	M1	M2
ERI 0550	5.5	69	Ø 4.5 H7	M4
ERI 0750	7.5	122	M6 x 0.75	M5 x 0.5
ERI 1000	10	110	M8 x 0.75	M6 x 0.75
ERI 1200	12	110	M8 x 0.75	M7 x 0.75
ERI 1500	15	110	M8 x 0.75	M8 x 1
ERI 1600	16	110	M8 x 0.75	M8 x 1
ERI 1800	18	110	M8 x 0.75	M8 x 1
ERI 2000	20	110	M14 x 1.5	M10 x 1

Revolving End-Pieces for IEMCA Mini-Boss

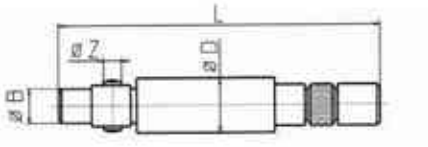
Art. No.	D	L
ERI 1200-L	12	115

Revolving End-Pieces for Traub – FMB - Hagenuk



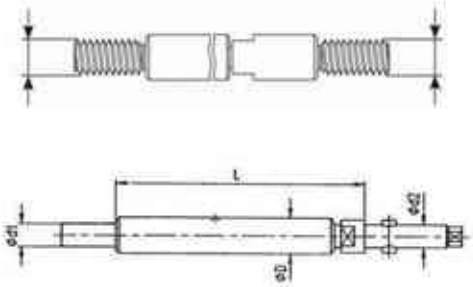
Art. No.	D	L	G
ERTA 0550	5.5	69	M4
ERTA 0700	7	78.5	M5

Revolving End-Pieces for FMB – Hagenuk – Traub <D15 – Robobar (D 5.5 – 7.5)



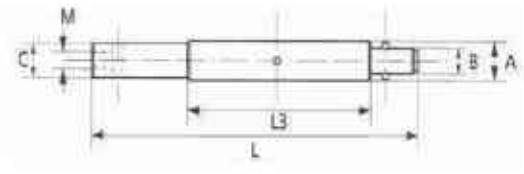
Art. No.	D	B	Z	L
SPHLD 10H	10	8	6	100.5
SPHLD 12H	12	8	6	100.5
SPHLD 15H/T	15	12	6	102.5
SPHLD 18H/T	18	12	6	102.5
SPHLD 20H/T	20	14	8	112.5
SPHLD 25H/T	25	20	8	118

Revolving End-Pieces for Tornos Robobar



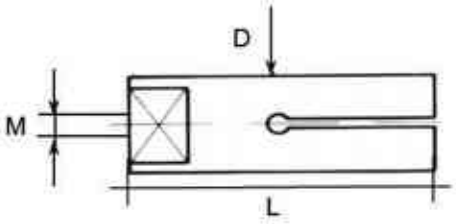
Art. No.	D	d1	d2	L
SPHLD 5.5R	5.5	M3	M4	78
SPHLD 7.5R	7.5	M5	M5	78
SPHLD 10R	10.5	7	7	75
SPHLD 16R	16	10	11	120
SPHLD 18R	18	10	11	120
SPHLD 21R	21	14	14	120
SPHLD 25R	25	20	20	120
SPHLD 26R	26	20	20	120
SPHLD 36R	36	25	20	120

Revolving End-Pieces for LNS Minisprint & Exprès



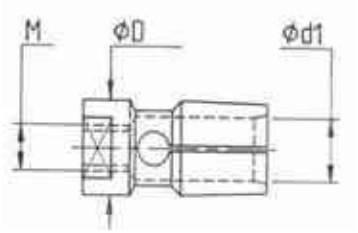
Art. No.	A	B	C	L3	L	M
LNS 10	10	7h7	8h7	42	95	M4
LNS 12	12	8h7	8h7	42	95	-
LNS 15	15	12h7	12h7	42	96	M5
LNS 18	18	12h7	12h	42	96	-
LNS 20	20	17h7	17h	46	111	M8

Collets for Tornos Super-Télébar and Barboy (poss. Béchet)



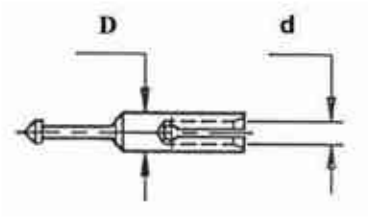
Art. No.	D	d	Thread	M	L
SPHT 45	4.5	M3	outside	M3	31
SPHT 55	5.5	M3	outside	M3	31
SPHT 75	7.5	7.5	inside	M4	30
SPHT 85	8.5	8.5	inside	M5	30
SPHT 105	10.5	10.5	inside	M6	35
SPHT 12	12	12	inside	M6	35
SPHT 15	15	15	inside	M6	35
SPHT 165	16.5	16.5	inside	M8	35
SPHT 205	20.5	20.5	inside	M8	35

Collets for Caddie Barfeeders



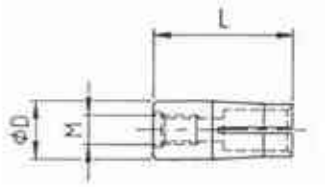
Art. No.	D	d1	M
SPHC 95	9.5	2 – 8 mm	M6
SPHC 105	10.5	3 – 9 mm	M6
SPHC 125	12.5	4 – 11 mm	M6
SPHC 150	15.0	5 – 13 mm	M6
SPHC 160	16.0	5 – 14.5 mm	M8
SPHC 175	17.5	5 – 16 mm	M8

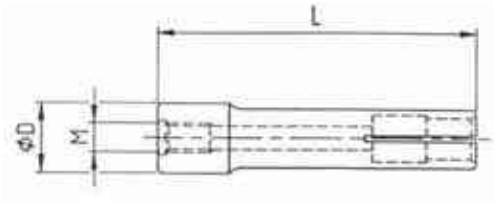
Clamping finger for TORNOS Télébar



Art. No.	D	d
SPHTE 45	4.50	0.90 - 3.50
SPHTE 55	5.50	0.90 – 4.50
SPHTE 75	7.50	1.50 – 6.50

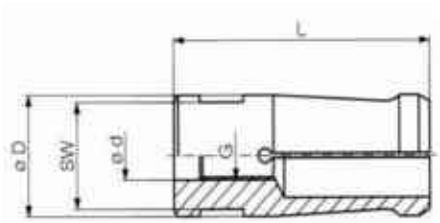
Collets for Bechler Barfeeders





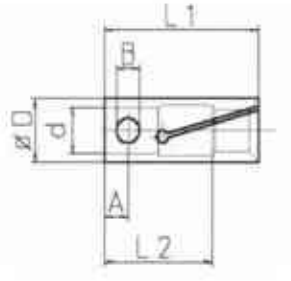
Art. No.	Type	D	L (mm)	M
SPHB 45	320	4.5	22	M2.5
SPHB 50	3000-H	5.0	22	M3
SPHB 55	65-5.5	5.5	22	M3.5
SPHB 70	65 / 73	7.0	22	M4
SPHB 10	65 / 73	10	26	M5
SPHB 12C	65 / 73	12	26	M5
SPHB 12L	12 long	12	60	M5
SPHB 13L	13 long	13	60	M6
SPHB 16C	16 short	16	30	M6
SPHB 16L	16 long	16	60	M6
SPHB 20C	20 short	20	30	M8x1
SPHB 20L	20 long	20	60	M8x1

Collets for IEMCA Barfeeders



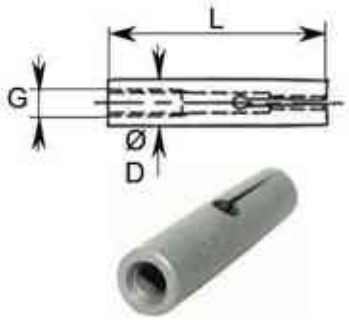
Art. No.	D	L	G	Bar diam.
SPHI 45	4.5	37	M3x0.5	1 – 3.4
SPHI 55	5.5	37	M4	1 – 4.4
SPHI 07	7.0	40	M5x0.5	1 – 5.9
SPHI 75	7.5	40	M5x0.5	1 – 6.4
SPHI 10	10.0	40	M6x0.7	1 – 8.9
SPHI 12	12.0	42	M7x0.7	1 – 10.9
SPHI 15	15.0	42	M8x1	2 – 13.8
SPHI 16	16.0	42	M8x1	3 – 14.8
SPHI 18	18.0	42	M8x1	3 – 16.5
SPHI 20	20.0	59	M10x1	3 – 18.5
SPHI 23	23.0	59	M10x1	6 – 21.5
SPHI 25	25.0	59	M10x1	6 – 23.5

Collets for Barfeeders FMB – Robobar - Traub – Hagenuk – Iemca – LNS – Sameca



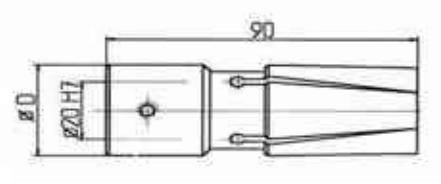
Art. No.	D	d	L	Bar diam.	
SPH 05	5	M4	37	1 – 4.5	
SPH 07	7	M5	37	1 – 5.9	
SPH 07	7	M5	37	6	USA
SPH 10	10	7	40	2 – 8.9	
SPH 10	10	7	40	9	USA
SPH 12	12	8	40	2 – 10.8	
SPH 12	12	8	40	10.9 – 11	USA
SPH 15	15	11	40	2 – 13.8	
SPH 15	15	11	40	13.9 – 14	USA
SPH 16	16	11	40	2.5 – 14.8	
SPH 18	18	11	40	2.5 – 16.8	
SPH 20	20	14	65	4 – 18.5	
SPH 25	25	20	65	6 – 23.5	
SPH 32	32	20	65	8 - 30	

Collets for Barfeeders LNS Tryton – 2000 series



Art. No.	D	G	L (mm)	Bar diam.
SPHL 06	6	M4	30	1.5 – 4.9
SPHL 07	7	M4	30	1.5 - 5
SPHL 10	10	M5	30	2 – 9
SPHL 127	12.70	M6	30	2 – 11
SPHL 17	17	M8	35	4 – 15
SPHL 20	20	M10	35	5 - 18

Collets for Barfeeders FMB – Robobar – Traub – Hagenuk – Iemca – LNS – Sameca

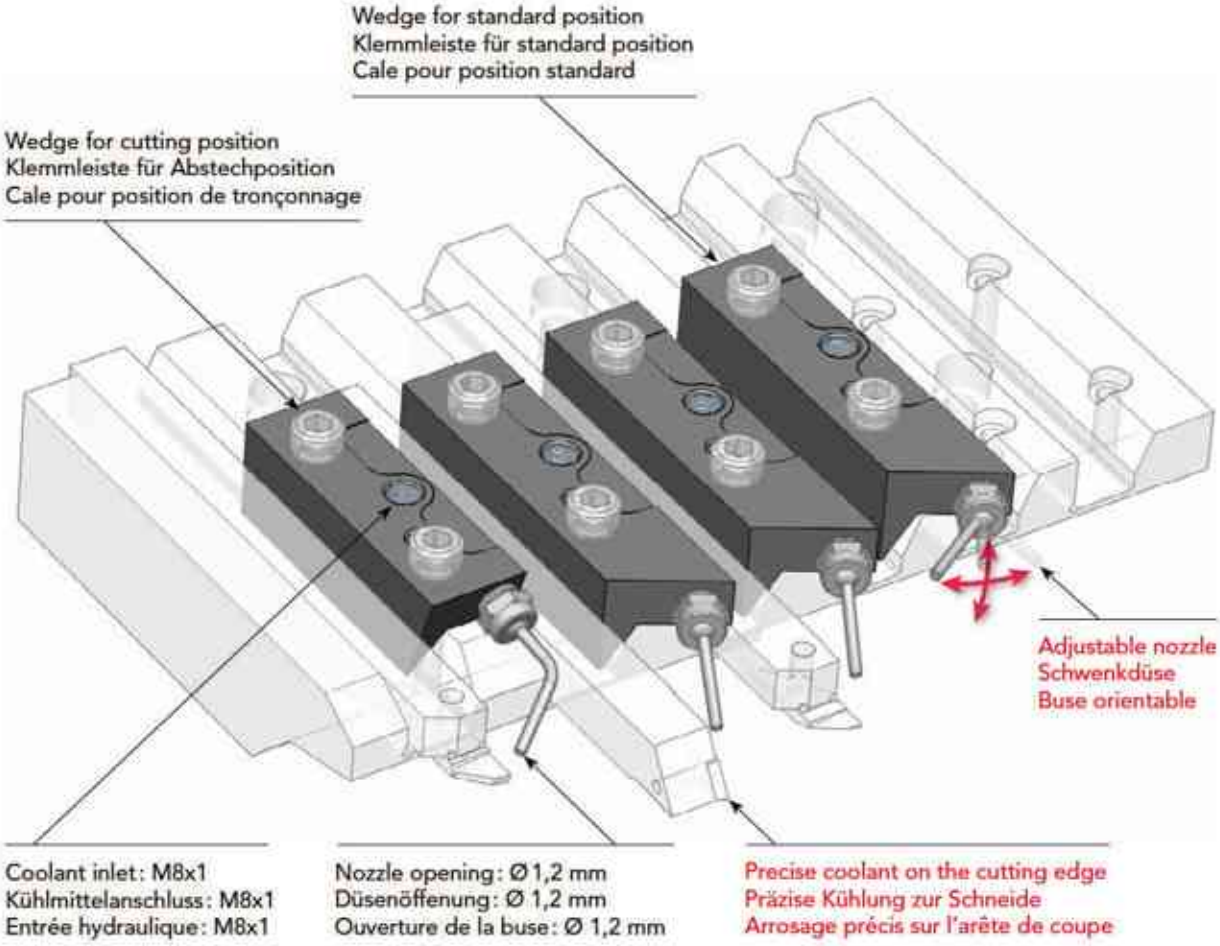


Art. No.	D	L	Bar diam.
SPHTS 25	25	90	3 – 20
SPHTS 32	32	90	5 – 29.5
SPHTS 36	36	90	5 - 30

Wedges with internal coolant system and adjustable nozzle
Werkzeughalter-Klemmung mit innenliegender Kühlmittelzufuhr und Schwenkdüse
Cales de serrage avec système d'arrosage intégré et buse orientable

For machines | Für Maschinen | Pour machines star

SB16 | SR-20R | SR-20J/JN | SR-20RII | SR-20RIII | SR-20RIV | SR-32J/JN | SV-12 | SV-20

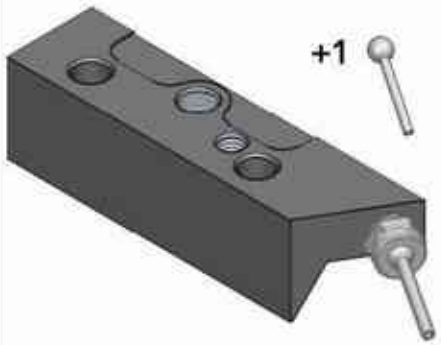
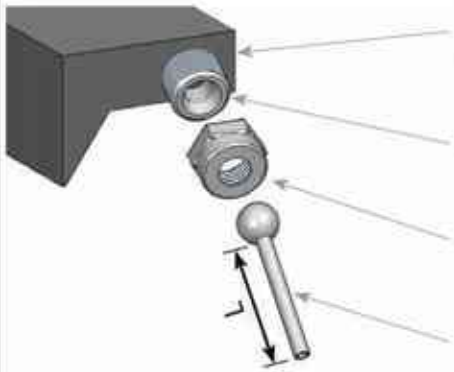
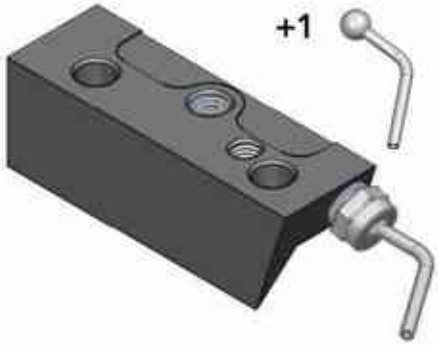
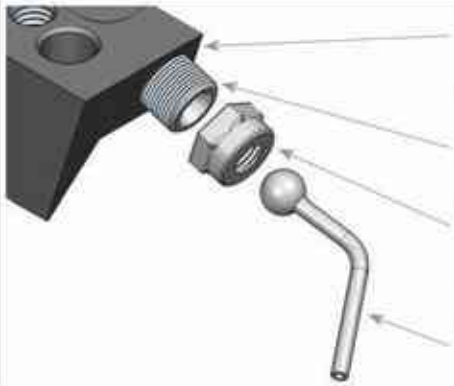


Ideal system with the use of a high pressure coolant.
Optimum efficiency from 50 bar. Maximum allowable pressure: 200 bar

Ideales System zum Bearbeiten mit Hochdruck.
Optimal ab 50 bar. Max. Druck: 200 bar

Système idéal avec l'utilisation d'un arrosage haute pression.
Efficacité optimale dès 50 bar. Pression maximale admissible: 200 bar

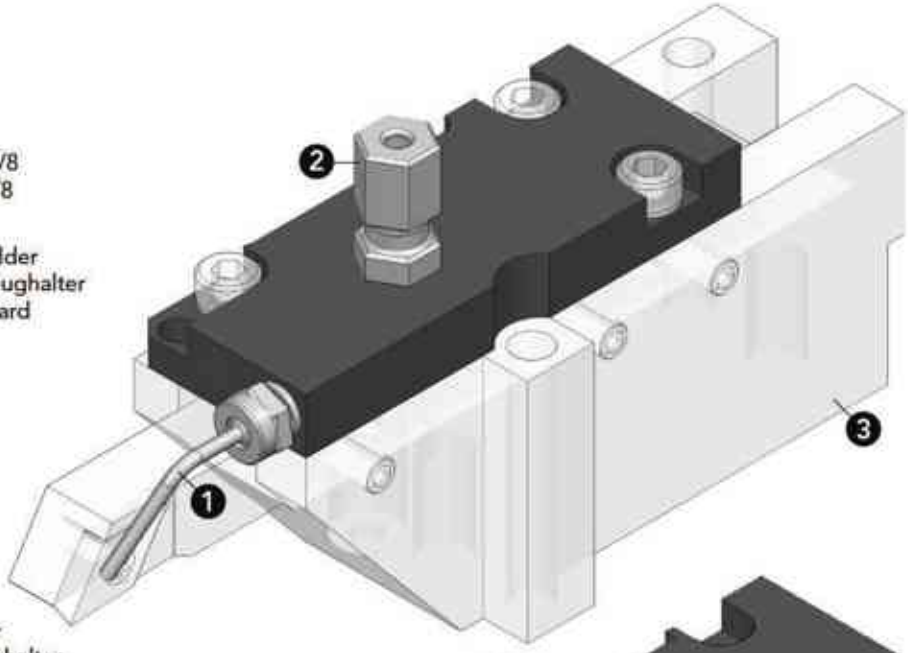
«Nozzy» system
«Nozzy» System
Système «Nozzy»

	Description Bezeichnung Description		Article nr. Artikel Nr. N° Article
	Wedges with internal coolant system and adjustable nozzle. Complete kit with spare nozzle. **Use on the standard positions of the gang.** Werzeughalter-Klemmung mit innenliegender Kühlmittezufuhr und Schwenkdüse. Komplett-Set mit Ersatz Düse. **Einsatz auf den Standardpositionen der Kamm.** Cale de serrage avec système d'arrosage intégré : kit complet avec buse de rechange. **Utilisation sur les positions standards du peigne.**		015.80.200
	Wedge Werkzeughalter-Klemmung Cale de serrage		015.80.100
	Adapter M6X0,5 / M8X0,75 Adapter M6X0,5 / M8X0,75 Adaptateur M6X0,5 / M8X0,75		015.81.304
	Nut Mutter Ecrou		015.81.301
	Straight sprying nozzle Gerade Düse Buse d'arrosage droite	L = 23 mm	015.81.302
		L = 31 mm	015.81.305
		L = 39 mm	015.81.306
	Wedges with internal coolant system and adjustable nozzle. Complete kit with spare nozzle. **Use on the cutting position of the gang.** Werzeughalter-Klemmung mit innenliegender Kühlmittezufuhr und Schwenkdüse. Komplett-Set mit Ersatz Düse. **Einsatz auf die Abstechposition der Kamm.** Cale de serrage avec système d'arrosage intégré : kit complet avec buse de rechange. **Utilisation sur la position de tronçonnage du peigne.**		015.80.400
	Wedge Werkzeughalter-Klemmung Cale de serrage		015.80.300
	Adapter M6X0,5 / M8X0,75 Adapter M6X0,5 / M8X0,75 Adaptateur M6X0,5 / M8X0,75		015.81.304
	Nut Mutter Ecrou		015.81.301
	Angled spraying nozzle Abgewinkelte Düse Buse d'arrosage coudée		015.81.303

Bimu
cutting tools & accessories

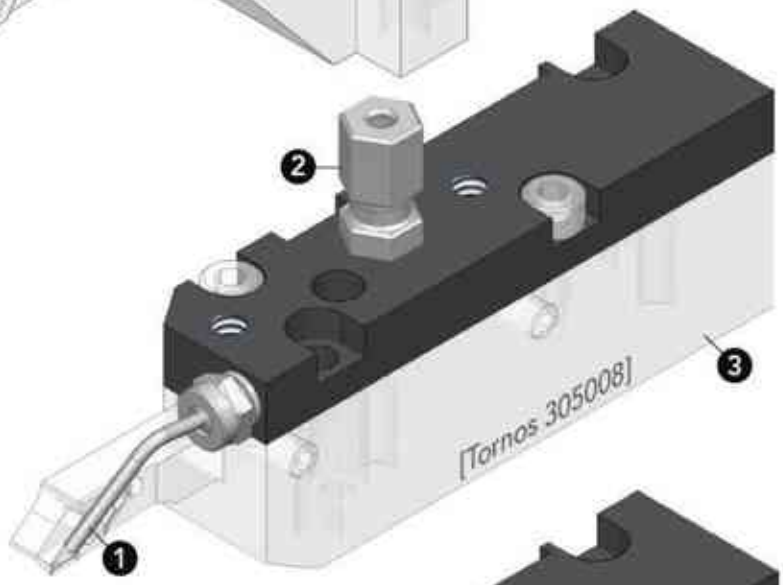
Coolant system for tool holders Tornos Deco / EvoDeco
Kühlmittelzufuhr für Werkzeughalter Tornos Deco / EvoDeco
Système d'arrosage pour porte-outils Tornos Deco / EvoDeco

1. Adjustable nozzle
   Schwenkdüse
   Buse orientable
2. Coolant inlet: G1/8
   Kühlmittelanschluss: G1/8
   Entrée hydraulique: G1/8
3. Standard Tornos tool holder
   Standard Tornos Werkzeughalter
   Porte-outil Tornos standard



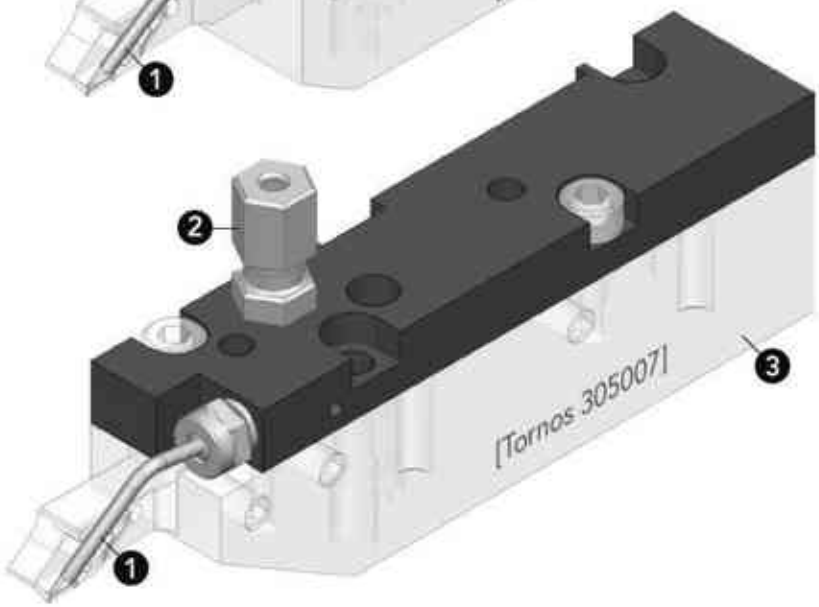
For short and long tool holder
Für kurze und lange Werkzeughalter
Pour porte-outil court et long

Tornos Deco 13
Tornos EvoDeco 16



For short tool holder
Für kurze Werkzeughalter
Pour porte-outil court

Tornos Deco 10
Tornos EvoDeco 10



For short tool holder
Für lange Werkzeughalter
Pour porte-outil long

Tornos Deco 10
Tornos EvoDeco 10

Bimu SA
cutting tools
& accessories

case postale 50
rue du Quai 10
CH-2710 Tavannes

e. info@bimu.ch
i. www.bimu.ch

t. +41 32 482 60 50
f. +41 32 482 60 59

	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	Coolant system for tool holder Tornos Deco 13 and EvoDeco 16. Kühlmittelzufuhr für Werkzeughalter Tornos Deco 13 und EvoDeco 16. Système d'arrosage pour porte-outil Tornos Deco 13 et EvoDeco 16.	015.12.200.01
	Short tool holder for Tornos Deco 13 and EvoDeco 16. Kurze Werkzeughalter für Tornos Deco 13 und EvoDeco 16. Porte-outil court pour Tornos Deco 13 et EvoDeco 16.	015.12.120
	Coolant system for long tool holder Tornos Deco 10 and EvoDeco 10. Kühlmittelzufuhr für lange Werkzeughalter Tornos Deco 10 und EvoDeco 10. Système d'arrosage pour porte-outil long Tornos Deco 10 et EvoDeco 10.	015.11.300.01
	Coolant system for short tool holder Tornos Deco 10 and EvoDeco 10. Kühlmittelzufuhr für kurze Werkzeughalter Tornos Deco 10 und EvoDeco 10. Système d'arrosage pour porte-outil court Tornos Deco 10 et EvoDeco 10.	015.11.310.01

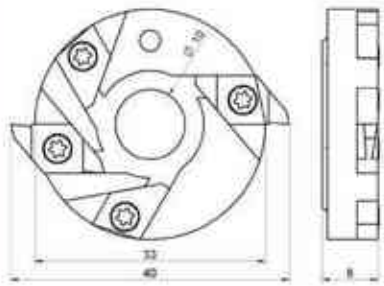
High pressure up to
Hochdruck bis
Haute pression jusqu'à

150 bar

	Description Bezeichnung Description	Article nr. Artikel Nr. N° Article
	High pressure tube 100 mm, G1/8" Hochdruckrohr 100 mm, G1/8" Tuyau haute pression 100 mm, G1/8"	01.04.4295
	High pressure tube 180 mm, G1/8" Hochdruckrohr 180 mm, G1/8" Tuyau haute pression 180 mm, G1/8"	01.04.4000
	High pressure tube 300 mm, G1/8" Hochdruckrohr 300 mm, G1/8" Tuyau haute pression 300 mm, G1/8"	01.04.3870
	High pressure tube 400 mm, G1/8" Hochdruckrohr 400 mm, G1/8" Tuyau haute pression 400 mm, G1/8"	01.04.4302
	Straight connector G1/8" Gerade Verbindung G1/8" Raccord droit G1/8"	01.04.2292
	Angled connector G1/8" Winkelstecker G1/8 Raccord coudé G1/8"	01.04.3340
	Straight connector M8x1 Gerade Verbindung M8x1 Raccord droit M8x1	01.04.3939
	Angled connector M8x1 Winkelstecker M8x1 Raccord coudé M8x1	01.04.3340.1
	4-output distributor G1/8" Verteilerblock 4-fach G1/8" Distributeur 4 sorties G1/8"	02.01.0041

310R TORNOS

Tornos Deco 7/10



Use with inserts
Passende Wendeplatten
Utilisation avec plaquettes

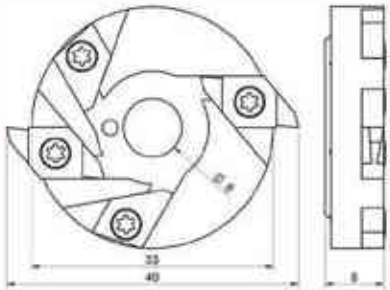
371R

371R2,0

372R/L

313R TORNOS

Tornos Micro 7
Tornos SwissNano



Use with inserts
Passende Wendeplatten
Utilisation avec plaquettes

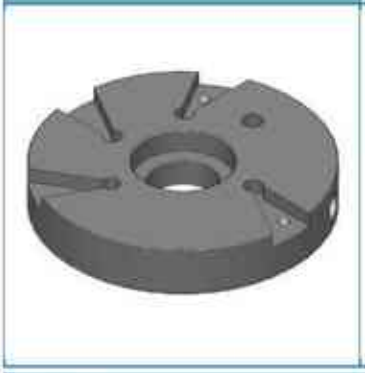
371R

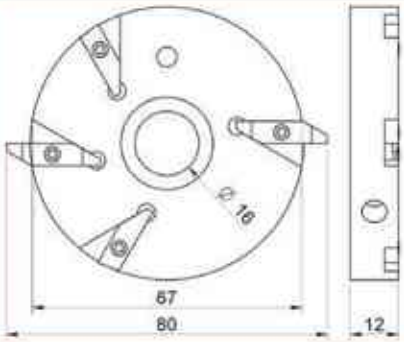
371R2,0

372R/L

320R TORNOS

Tornos Deco 13/20/26
Tornos ST 26





Use with inserts
Passende Wendeplatten
Utilisation avec plaquettes

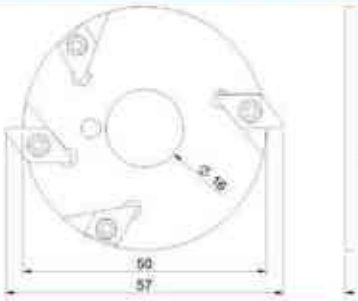
064RPP3,5

060RPP2,0

041R/L

380R TORNOS

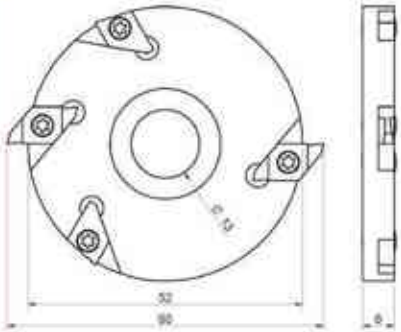
Tornos
SAS 16 ; SAS DC ; SAS 16.6

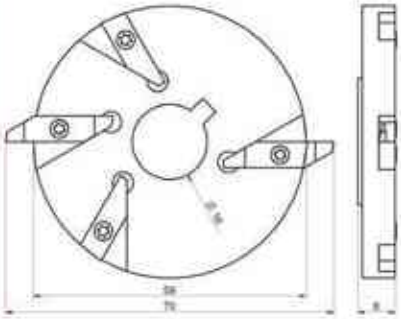


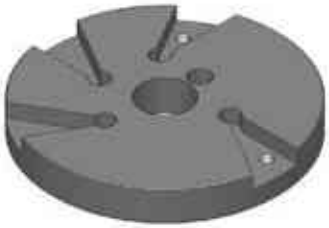
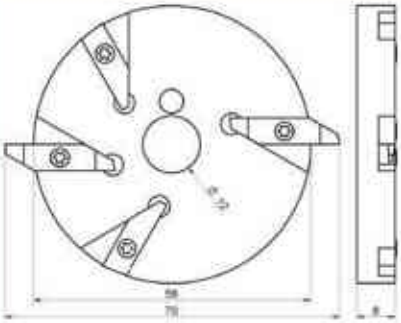
Use with inserts
Passende Wendeplatten
Utilisation avec plaquettes

340R5

372R/L

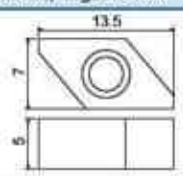
311L	Star SR-20	Use with inserts Passende Wendeplatten Utilisation avec plaquettes
		371L 371L2,0 372R/L

322L	Star SR-32	Use with inserts Passende Wendeplatten Utilisation avec plaquettes
		064LPP3,5 060LPP2,0 041R/L

321R	Traub TNL 12	Use with inserts Passende Wendeplatten Utilisation avec plaquettes
		064RPP3,5 060RPP2,0 041R/L

340R5

Blank insert, width 5 mm
Rohling, Breite 5 mm
Plaquette ébauche, largeur 5 mm

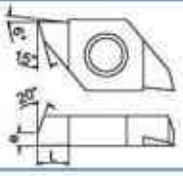


e	L	Article nr. Artikel Nr. N° Article	K10
5	–	340R5	✓

Insert's profiles grinded according to customer requirements
Wendeplattenprofil nach Kundenwunsch geschliffen
Formes de profil meulées d'après les besoins du client

371R

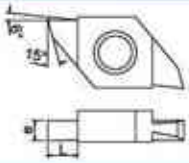
Front turning insert, right
Drehplatte vorne, rechts
Tourneur avant, à droite



e	L	Article nr. Artikel Nr. N° Article	K10	BI90	TIN
1,3	3,0	371R	✓	✓	✓

371R2,0

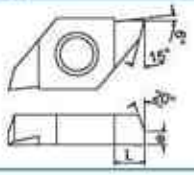
Back turning insert, right
Drehplatte hinten, rechts
Tourneur arrière, à droite



e	L	Article nr. Artikel Nr. N° Article	K10	BI90	TIN
1,0	3,0	371R1,0	✓	✓	✓
2,0	3,0	371R2,0	✓	✓	✓

371L

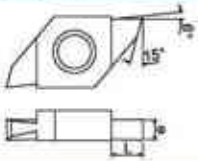
Front turning insert, left
Drehplatte vorne, links
Tourneur avant, à gauche



e	L	Article nr. Artikel Nr. N° Article	K10	BI90	TIN
1,3	3,0	371L	✓	✓	✓

371L2,0

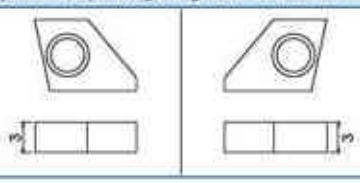
Back turning insert, left
Drehplatte hinten, links
Tourneur arrière, à gauche



e	L	Article nr. Artikel Nr. N° Article	K10	BI90	TIN
2,0	3,0	371L2,0	✓	✓	✓

372R/L

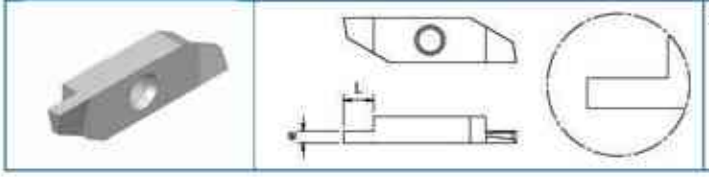
Balancing insert, right and left
Auswuchplatte, rechts und links
Plaquette d'équilibrage, à gauche et à droite



Article nr. Artikel Nr. N° Article	K10
372R/L	✓

060RPP

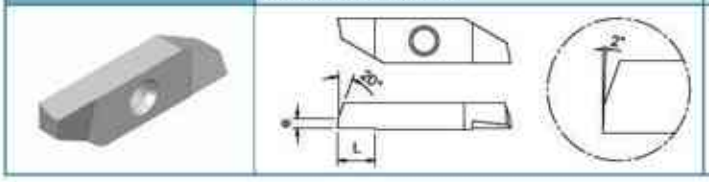
Back turning insert 0°, right
Drehplatte hinten 0°, rechts
Tourneur arrière 0°, à droite



e	L	Article nr. Artikel Nr. N° Article	BI40	TIN
2,0	4,5	060RPP2,0	✓	✓

064RPP

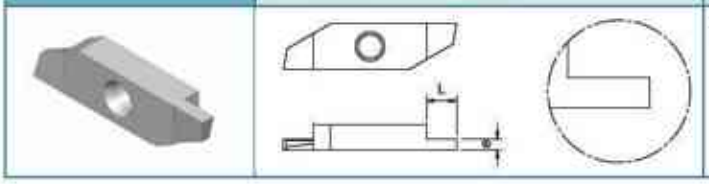
Front turning insert, right
Drehplatte vorne, rechts
Tourneur avant, à droite



e	L	Article nr. Artikel Nr. N° Article	BI40	TIN
1,5	5	064RPP3,5	✓	✓

060LPP

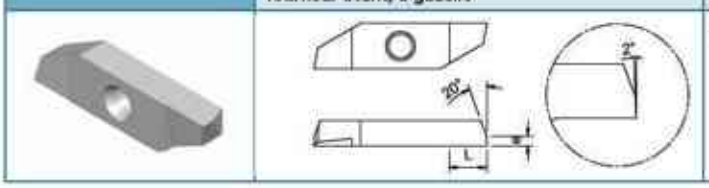
Back turning insert 0°, left
Drehplatte hinten 0°, links
Tourneur arrière 0°, à gauche



e	L	Article nr. Artikel Nr. N° Article	BI40	TIN
2,0	4,5	060LPP2,0	✓	✓

064LPP

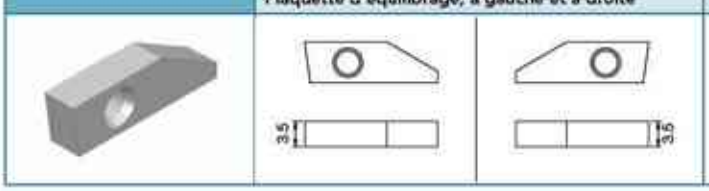
Front turning insert, left
Drehplatte vorne, links
Tourneur avant, à gauche



e	L	Article nr. Artikel Nr. N° Article	BI40	TIN
1,5	5	064LPP3,5	✓	✓

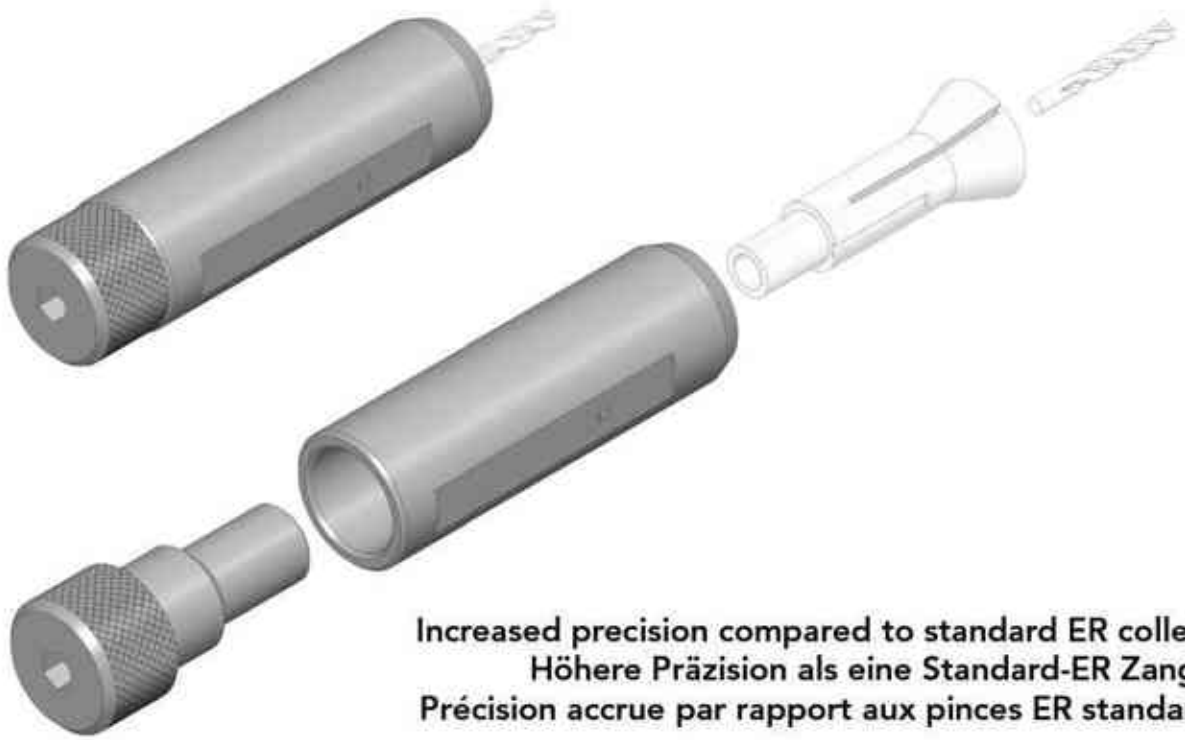
041R/L

Balancing insert, right and left
Auswuchplatte, rechts und links
Plaquette d'équilibrage, à gauche et à droite



Article nr. Artikel Nr. N° Article	K10
041R/L	✓

Precision collet holder B8
Präzisionsbohrerhalter B8
Porte-perceur de précision B8

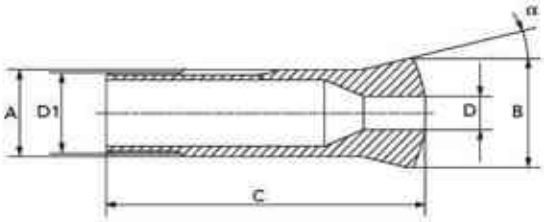


Increased precision compared to standard ER collets
Höhere Präzision als eine Standard-ER Zange
Précision accrue par rapport aux pinces ER standard

Article nr. Artikel Nr. N° Article	Ø (mm)	Length (mm) Länge (mm) Longueur (mm)	Recommended for Empfohlen für Recommandé pour
B8 12 60	12	60	Tornos SwissNano Citizen R07
B8 12 100	12	100	Tornos SwissNano
B8 5/8" 60	15,875 (5/8")	60	Citizen R04 Citizen R07
B8 16 60	16	60	Tornos Micro 7 Tornos Micro 8 Tsugami P01
B8 16 100	16	100	Star SR-10J Tornos Micro 7 Tornos SwissNano
B8 3/4" 100	19,05 (3/4")	100	Citizen C16 Citizen M16
B8 20 100	20	100	Tornos Delta 12/20 Tornos Gamma 20
B8 22 100	22	100	Star SB-16 Star SR-20
B8 25 100	25	100	Tornos Deco 13

Precision collets B8
Präzisionspannzangen B8
Pinces de précision B8

Collets B8
Spannzangen B8
Pinces B8



A	8 mm
B	13 mm
C	35.50 mm
D1	Ø 6.82 x 0.625 ∢ 55°
α	20°

Article nr Artikle Nr N° d'article
B8 - D
B8 - 0.2
B8 - 0.3
B8 - 0.4
B8 - 0.5
B8 - 0.6
B8 - 0.7
B8 - 0.8
B8 - 0.9
B8 - 1.0
B8 - 1.1
B8 - 1.2
B8 - 1.3
B8 - 1.4
B8 - 1.5
B8 - 1.6
B8 - 1.7
B8 - 1.8
B8 - 1.9
B8 - 2.0
B8 - 2.1
B8 - 2.2
B8 - 2.3
B8 - 2.4
B8 - 2.5
B8 - 2.6
B8 - 2.7
B8 - 2.8
B8 - 2.9

Article nr Artikle Nr N° d'article
B8 - D
B8 - 3.0
B8 - 3.1
B8 - 3.2
B8 - 3.3
B8 - 3.4
B8 - 3.5
B8 - 3.6
B8 - 3.7
B8 - 3.8
B8 - 3.9
B8 - 4.0
B8 - 4.1
B8 - 4.2
B8 - 4.3
B8 - 4.4
B8 - 4.5
B8 - 4.6
B8 - 4.7
B8 - 4.8
B8 - 4.9
B8 - 5.0
B8 - 5.1
B8 - 5.2
B8 - 5.3
B8 - 5.4
B8 - 5.5
B8 - 5.6
B8 - 5.7
B8 - 5.8
B8 - 5.9

Article nr Artikle Nr N° d'article
B8 - D
B8 - 6.0
B8 - 6.1
B8 - 6.2
B8 - 6.3
B8 - 6.4
B8 - 6.5
B8 - 6.6
B8 - 6.7
B8 - 6.8
B8 - 6.9
B8 - 7.0
B8 - 7.1
B8 - 7.2
B8 - 7.3
B8 - 7.4
B8 - 7.5
B8 - 7.6
B8 - 7.7
B8 - 7.8
B8 - 7.9
B8 - 8.0

Bimu
cutting tools & accessories

Mini precision parts vice
Mini-Präzisions-Schraubstock zum Messen
Mini étau de précision pour mesure

L x H x P : 15 x 15 x 80 mm

- Helps the fastening of parts for their optical & mechanical measurement.
- Ideal for measuring turned parts.
- Erleichtert die Spannung der Werkstücke, für die optische und die mechanische Messung.
- Ideal für die Messung von Drehteilen.
- Facilite la fixation des pièces pour leur mesure optique ou mécanique.
- Idéal pour la mesure des pièces de décolletage.

- Perpendicular conception utilizable on all faces.
- Senkrechte Ausführung, auf allen Seiten einsetzbar.
- Conception perpendiculaire, utilisable sur toutes les faces.

- Numerous possibilities to grip the part.
- Mehrere Möglichkeiten das Werkstück einzuspannen.
- Multiples possibilités de tenir la pièce.

- Tightening conceived for different part diameters.
- Spannung für alle Größen der Werkstücke ausgeführt.
- Serrage conçu pour différents diamètres de pièce.

- Part reference / Bestellnummer / Référence d'article : **MEP**

IFANGER

MicroTurn

Torneado a partir de Ø 0,3 mm

Tournage à partir de Ø 0,3 mm

Turning starting at Ø 0,3 mm

Eficiente. Fiable. Comprometido.
El nombre Ifanger es sinónimo de calidad, de fiabilidad y de alto valor añadido. Estos factores de éxito se concretan para nuestros clientes a través de productos adecuados que garantizan el más alto nivel de precisión, de eficacia y de rentabilidad. Todo ello gracias a soluciones técnicas sofisticadas, un parque de maquinaria de altas prestaciones y un equipo humano cualificado y comprometido.

Efficace. Fiable. Engagé.
Ifanger est synonyme de qualité, de fiabilité et de haute valeur ajoutée. Ces facteurs de réussite se concrétisent pour nos clients par des produits adéquats qui garantissent le plus haut niveau de précision, d'efficacité et de rentabilité, ceci grâce à des solutions techniques sophistiquées, un parc de machines de haute performance et une équipe qualifiée et engagée.

Efficient. Reliable. Committed.
The name Ifanger represents quality, reliability and high customer value. These success factors are transmitted for our customers into suitable products that guarantee the highest level of precision, efficiency and profitability. This is achieved through sophisticated technical solutions, a high-performance machine park and a qualified and committed team.

El futuro tiene su base en la historia
Ifanger AG es una empresa suiza activa en todo el mundo desde hace más de 100 años. Desarrollamos y fabricamos herramientas de alta gama bajo las marcas Ifanger, MicroTurn y Randag. Nuestros productos son ricos en innovación y experiencia, y responden perfectamente a las exigencias solicitadas por los materiales y las máquinas de última generación.

L'avenir a son histoire
Ifanger AG est une entreprise suisse active dans le monde entier depuis plus de 100 ans. Nous développons et fabriquons des outils haut de gamme sous les marques Ifanger, MicroTurn et Randag. Nos produits sont riches d'expérience et d'innovation et répondent parfaitement aux exigences posées par les matériaux et les machines de nouvelles générations.

The future has its own history
Ifanger AG is a Swiss company that has been active worldwide for more than 100 years. We develop and manufacture high-quality cutting tools under the Ifanger, MicroTurn and Randag brands. Our products stand for rich experience and pioneering innovations. They are perfectly matched to the requirements of the latest generation of materials and machines.

MicroTurn

Ventajas del sistema MicroTurn

- Gracias a la sujeción por delante se accede muy fácilmente para el cambio de la herramienta de corte.
- El asiento prismático dentro del porta-herramientas asegura una precisión de cambio de herramientas de menos de 0,05 mm.
- Se pueden suministrar herramientas en Carburo no recubiertas o recubiertas de TiAlN, según las necesidades del material a mecanizar.
- Se obtienen superficies absolutamente finas y lisas, gracias al rectificado superfino de las caras de incidencia y de desprendimiento, y gracias a unas aristas de corte extremadamente afiladas.

Avantages du système MicroTurn

- Grâce au serrage par devant accès très facile pour changement de l'outil de coupe.
- Le siège prismatique dans le porte-outil assure une précision de changement d'outils de moins de 0,05 mm.
- Des outils en carbure non revêtus ou revêtus de TiAlN sont livrables suivant les besoins du matériel à usiner.
- Des surfaces fines et nettes grâce à l'affûtage superfin des faces de coupe et de dépouille et aux coupes extrêmement agressives.

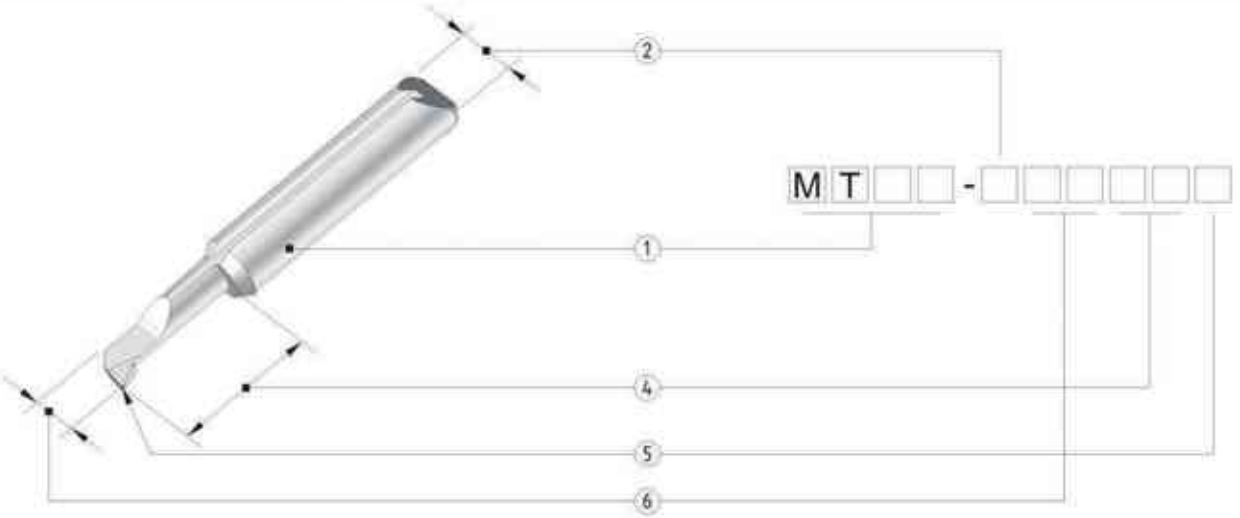
Advantages of MicroTurn system

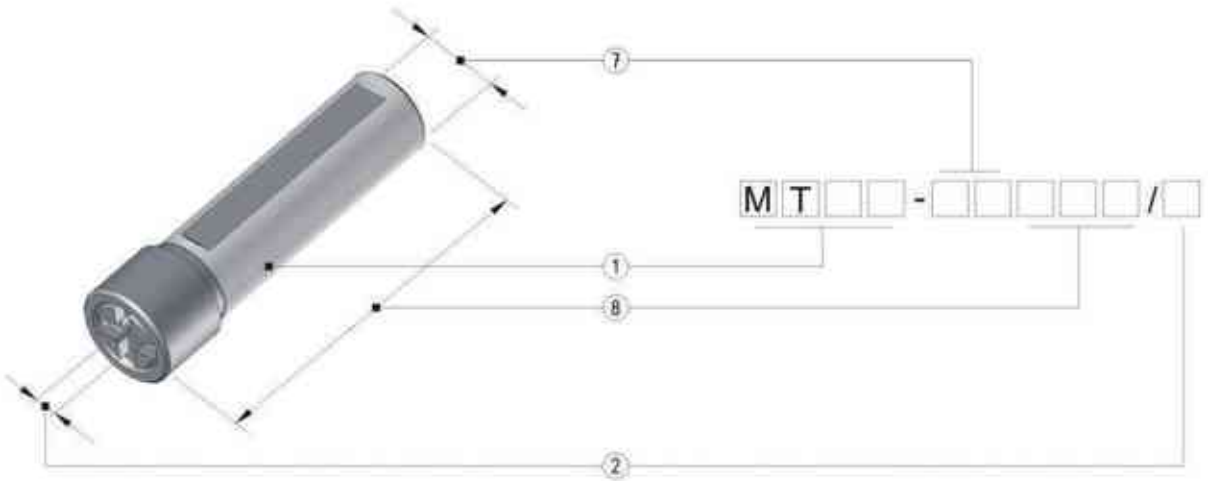
- Thanks to clamping from in front easy changing of the cutting tool.
- A V-seat in the tool holder standing for a changing accuracy of cutting tool of <0.05 mm.
- For machining various materials carbide tools, TiAlN coated and uncoated, are available.
- An absolutely fine grinding of rake and chip face and a sharp cutting edge guarantee a fine and clean surface of the workpiece.

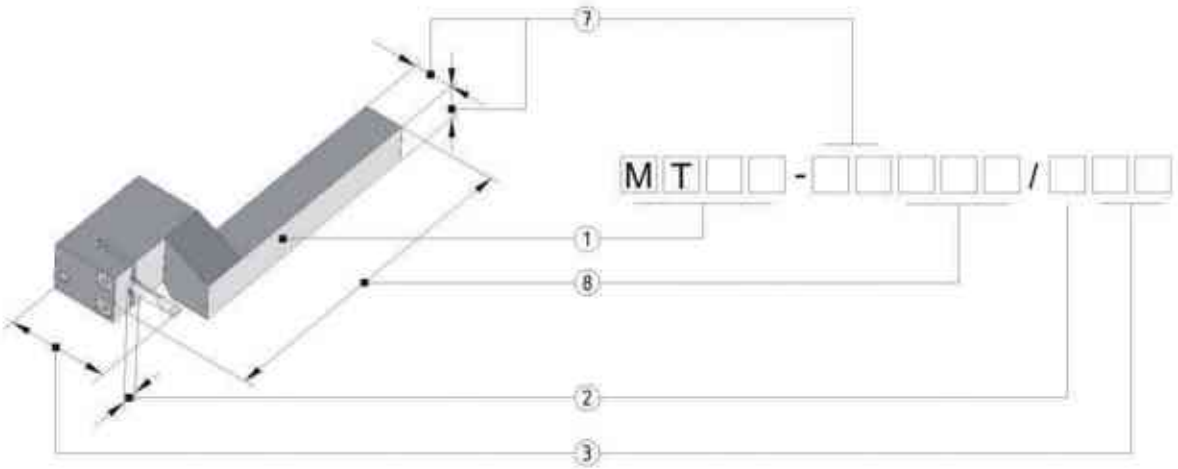
Altas prestaciones e innovación
Utilizando la tecnología más moderna, Ifanger SA les propone herramientas de corte por arranque de viruta innovadoras, fáciles de utilizar y totalmente fiables que no se contentan con meramente garantizarles la aplicación deseada – sino que además les satisfacen los aspectos técnicos, funcionales y estéticos.

Performant et innovant
Par la mise en jeu de la technologie la plus moderne, Ifanger SA vous propose des outils d'enlèvement de copeaux innovants, faciles à utiliser et totalement fiables qui ne se contentent pas de garantir l'application souhaitée – mais qui remplissent aussi les aspects techniques, fonctionnels et esthétiques.

Efficient and innovative
By using state-of-the-art technology, Ifanger AG can offer innovative, user-friendly and reliable cutting tools. They do not only guarantee to do the job, they are technically, functionally and aesthetically top of the range.







1 Tipo de herramienta
2 Diámetro de mango
3 Longitud de herramienta
4 Longitud del cuello
5 Radio de corte
6 Diámetro mínimo de agujero interior
7 ⏥ o ∅ del porta herramientas
8 Longitud del porta herramientas

1 Type d'outil
2 Diamètre de tige
3 Longueur de l'outil
4 Longueur du col
5 Rayon de coupe
6 Alésage minimal
7 ⏥ ou ∅ du porte-outil
8 Longueur du porte-outil

1 Type of tool
2 Diameter of shank
3 Tool length
4 Length of neck
5 Radius of cutter
6 Minimal bore
7 ⏥ resp. ∅ of holder
8 Length of holder

Carburo K10 Micrograno (número de pedido ..... -K10)
El carburo superfino, compuesto en un 94% de carburo de tungsteno, 6% de cobalto y otros componentes, se produce mediante el proceso HIP de compresión isostática a alta temperatura. Gracias a los micrograno de menos de <1 µm, este carburo es extremadamente duro (>1800 HV30) y tenaz. Con su resistencia a la flexión de más de 3000 N/mm2 y su tenacidad, la probabilidad que se astillen los filos de corte es mucho menor. Esta composición de metal duro está especialmente recomendada para el mecanizado de materiales duros y de difícil mecanización donde una alta precisión sea requerida.

Carburo K20 Micrograno (número de pedido ..... -K20)
El carburo superfino, compuesto en un 90% de carburo de tungsteno, 10% de cobalto y otros componentes, se produce mediante el proceso HIP de compresión isostática a alta temperatura. Siendo igualmente fabricado con micrograno de <1 µm, este carburo es un poco menos duro (sobre los 1500 HV30) que el K10 pero notablemente más tenaz. Con su resistencia a la flexión de más de 3700 N/mm2 y su enorme tenacidad, la probabilidad que se astillen los filos de corte es mucho menor. Esta composición de metal duro está especialmente recomendada para las herramientas de roscar.

TiAlN (número de pedido ..... -TiAlN)
Recubrimiento PVD duro (3000 HV) de un espesor de varias µm aplicado sobre las herramientas de carburo. El recubrimiento violeta-gris aumenta en primera instancia el aislamiento térmico y facilita el deslizamiento.

Otros recubrimientos
Según los materiales a mecanizar, recubrimientos específicos alternativos pueden ser aplicados para aumentar la resistencia al desgaste. Contáctenos.

Carbure K10 Micrograin (numéro de commande .....-K10)
Le carbure superfin, composé de 94% de carbure de tungstène, 6% de cobalt et autres composants, est produit selon le procédé HIP de compression isostatique à température élevée. Grâce aux micrograins de moins de <1 µm, ce carbure est extrêmement dur (>1800 HV30) et tenace. Avec sa résistance à la flexion de plus de 3000 N/mm² et sa ténacité, une ébréchure des coupes est beaucoup moins fréquente. Cette nuance de métal dur est particulièrement recommandée pour le traitement de matériaux durs et difficiles à usiner dans des cas où une haute précision est demandée.

Carbure K20 Micrograin (numéro de commande .....-K20)
Le carbure superfin, composé de 90% de carbure de tungstène, 10% de cobalt et autres composants, est produit selon le procédé HIP de compression isostatique à température élevée. Tout en étant fabriqué également de micrograins de <1 µm, ce carbure est un peu moins dur (env. 1500 HV30) que K10 mais autant plus tenace. Avec sa résistance à la flexion de plus de 3700 N/mm² et son énorme ténacité, une ébréchure des coupes est beaucoup moins fréquente. Ce carbure est particulièrement recommandé pour des outils de filetage.

TiAlN (numéro de commande .....-TiAlN)
Revêtement PVD dur (3000 HV) d'une épaisseur de quelques µm appliqué sur des outils en carbure. Le revêtement violet-gris augmente en premier lieu l'isolation thermique et la facilité de glissement.

Autres revêtements
Selon les matériaux à usiner, des revêtements spécifiques alternatifs peuvent être appliqués pour augmenter encore la résistance à l'usure. Contactez-nous.

Micrograin carbide K10 (order No. .....-K10)
Micrograin carbide containing 94% tungsten carbide and 6% cobalt and other trace elements is being produced with sinter HIP technology. Thanks to micrograins of less than 1 µm, this carbide is extremely hard (>1,800 HV30) and tenacions. As a consequence of its flectional resistance of more than 3,000 N/mm² and the tenacity, the risk of notched edges is very much reduced. This grade of carbide is particularly recommended for treatment of hard material difficult to be machined and in cases where high accuracy is required.

Micrograin carbide K20 (order No. .....-K20)
Micrograin carbide containing 90% tungsten carbide and 10% cobalt and other trace elements is being produced with sinter HIP technology. Whilst also being produced with micrograins of less than 1 µm, this carbide is slightly less hard (approx. 1,500 HV30) than K10 but significantly more tenacions. As a consequence of its flectional resistance of more than 3,700 N/mm² and the enormous tenacity, the risk of notched edges is very much reduced. This grade of carbide is very much recommended for threading tools.

TiAlN (order No. .....-TiAlN)
Hard PVD layer (3,000 HV) of a few µm only applied on carbide tools. The violet-grey coating increases first of all the thermal protection and gliding ability.

Other coatings
Depending on the demand, the tools can be coated with an alternative wear protection layer. Please contact us.

Valores indicativos para la velocidad de corte v y de avance f

Valeurs indicatives pour vitesse de coupe v et d'avance f

Recommendations for cutting speeds v and feed f

Materiales Matériaux Materials	v (m/min)	f (mm/U)					
		Herramienta de corte			Burin	Cutting tool	
		MTEC Ø1,0–2,5 mm	MTEC Ø2,5–6,0 mm	MTEC > Ø6,0 mm	MTEN Ø1,0–2,5 mm	MTEN Ø2,5–6,0 mm	MTEN > Ø6,0 mm
Aceros de decoletaje Aciers de décolletage Free-cutting steels	70–100	0,02–0,04	0,03–0,08	0,07–0,15	0,02–0,04	0,03–0,08	0,07–0,15
Aceros de construcción <1000 N/mm² Aciers de construction <1000 N/mm² Constructional steels <1,000 N/mm²	70–100	0,01–0,03	0,03–0,07	0,07–0,12			
Aceros de construcción >900 N/mm² Aciers de construction >900 N/mm² Constructional steels >900 N/mm²	60–90	0,005–0,02	0,03–0,07	0,07–0,1			
Aceros de cementación <1000 N/mm² Aciers de cémentation <1000 N/mm² Case- hardening steels <1,000 N/mm²	70–100	0,01–0,03	0,02–0,06	0,05–0,12			
Aceros de cementación >900 N/mm² Aciers de cémentation >900 N/mm² Case- hardening steels >900 N/mm²	60–90	0,005–0,02	0,03–0,06	0,04–0,08			
Aceros bonificables <1000 N/mm² Aciers d'amélioration <1000 N/mm² Tempering steels <1,000 N/mm²	60–90	0,01–0,03	0,02–0,05	0,05–0,1			
Aceros bonificables >900 N/mm² Aciers d'amélioration >900 N/mm² Tempering steels >900 N/mm²	60–80	0,005–0,02	0,02–0,06	0,05–0,08			
Aceros de herramientas Aciers à outils Tool steels	60–80	0,005–0,02	0,02–0,06	0,05–0,08			
Aceros inoxidables Aciers inoxydables Stainless steels	60–90	0,01–0,03	0,03–0,07	0,05–0,1			
Fundición gris Fonte grise Grey cast iron	40–80				0,01–0,03	0,04–0,08	0,07–0,15
Fundición de grafito esferoidal Fonte à graphite sphéroïdal Nodular cast iron	40–70				0,01–0,03	0,03–0,08	0,07–0,12
Latón 58 Laiton 58 Brass 58	80–150				0,02–0,05	0,03–0,08	0,07–0,15
Aleaciones forjadas de Aluminio Alliages corroyés d'aluminium Forging alloys of aluminium	80–150	0,01–0,05	0,03–0,08	0,07–0,15			
Aleaciones de níquel Alliages au nickel Nickel alloys	20–40	0,005–0,02	0,01–0,04	0,03–0,06			
Aleaciones de titanio Alliages au titane Titanium alloys	40–60	0,01–0,03	0,02–0,05	0,05–0,1			

Valores indicativos para la velocidad de corte v y de avance f

Valeurs indicatives pour vitesse de coupe v et d'avance f

Recommendations for cutting speeds v and feed f

Materiales Matériaux Materials	v (m/min)	f (mm/U)						
		Herramienta de corte z		Burin			Cutting tool	
		MTK..	MTFA	MTNU	MTNN	MTNX/..Y	*MTG..	*MTG..
		Ø2,0–6,0 mm	Ø2,0–6,0 mm	Ø2,0–6,0 mm	Ø2,0–6,0 mm	ab Ø6,0 mm	p = 0,5–0,75	p = 1,0–1,5
							Anzahl Schnitte	
Aceros de decoletaje Aciers de décolletage Free-cutting steels	70–100 *25–60	0,05–0,15	0,05–0,12	0,02–0,06	0,02–0,06	0,02–0,05	6–8	9–12
Aceros de construcción <1000 N/mm² Aciers de construction <1000 N/mm² Constructional steels <1,000 N/mm²	70–100 *25–60	0,05–0,15	0,05–0,12	0,02–0,06		0,02–0,05	6–8	8–10
Aceros de construcción >900 N/mm² Aciers de construction >900 N/mm² Constructional steels >900 N/mm²	60–90 *25–50	0,03–0,12	0,03–0,1	0,015–0,04		0,01–0,03	7–9	9–12
Aceros de cementación <1000 N/mm² Aciers de cémentation <1000 N/mm² Case-hardening steels <1,000 N/mm²	70–100 *25–60	0,04–0,12	0,04–0,1	0,02–0,04		0,01–0,03	6–8	8–10
Aceros de cementación >900 N/mm² Aciers de cémentation >900 N/mm² Case-hardening steels >900 N/mm²	60–90 *25–50	0,03–0,1	0,03–0,08	0,015–0,04		0,005–0,02	7–9	9–12
Aceros bonificables <1000 N/mm² Aciers d'amélioration <1000 N/mm² Tempering steels <1,000 N/mm²	60–90 *25–50	0,05–0,12	0,04–0,1	0,02–0,04		0,01–0,03	7–9	9–12
Aceros bonificables >900 N/mm² Aciers d'amélioration >900 N/mm² Tempering steels >900 N/mm²	60–80 *22–50	0,03–0,1	0,03–0,08	0,015–0,04		0,005–0,02	8–10	12–15
Aceros de herramientas Aciers à outils Tool steels	60–80 *22–50	0,05–0,1	0,03–0,08	0,015–0,04		0,005–0,03	8–10	12–15
Aceros inoxidables Aciers inoxydables Stainless steels	60–90 *20–50	0,03–0,12	0,03–0,07	0,01–0,03		0,005–0,02	8–10	12–15
Fundición gris Fonte grise Grey cast iron	40–80 *30–60	0,05–0,15	0,05–0,1		0,02–0,07	0,02–0,05	7–9	11–14
Fundición de grafito esferoidal Fonte à graphite sphéroïdal Nodular cast iron	40–70 *25–50	0,03–0,12	0,03–0,1		0,02–0,05	0,01–0,04	8–10	12–15
Latón 58 Laiton 58 Brass 58	80–150 *30–65	0,05–0,15	0,05–0,12		0,03–0,06	0,02–0,05	6–8	8–10
Aleaciones forjadas de Aluminio Alliages corroyés d'aluminium Forging alloys of aluminium	80–150 *30–65	0,05–0,15	0,05–0,12	0,03–0,06		0,02–0,05	6–8	9–12
Aleaciones de níquel Alliages au nickel Nickel alloys	20–40 *10–18	0,02–0,08	0,02–0,06	0,01–0,04		0,005–0,02	7–9	10–14
Aleaciones de titanio Alliages au titane Titanium alloys	40–60 *15–30	0,02–0,1	0,02–0,08	0,02–0,05		0,01–0,03	7–9	10–14

Tallado de roscas (MTGE / MTGW)

El número de cortes depende en gran medida del material a mecanizar, la sujección de la pieza a mecanizar así como de la calidad deseada del roscado.

Importante: última pasada con menos de 0,04 mm!

Tailler des filetages (MTGE / MTGW)

Le nombre de passes dépend du matériau à usiner, du serrage de la pièce à usiner ainsi que de la classe de qualité du filetage.

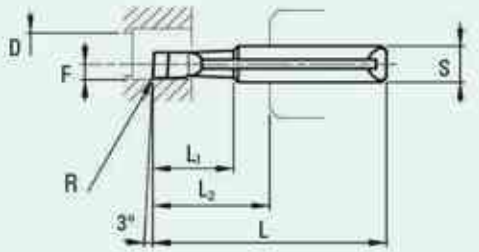
Important: dernière passe au moins 0,04 mm!

Cutting threads (MTGE / MTGW)

The number of cuttings is highly dependent of the material to be machined, of the clamping of the workpiece and of the quality grade of the thread.

Important: Last cutting at least 0,04 mm!

MTEC



γ: Angulo de desprendimiento | γ: Angle de coupe | γ: Rake angle

Referencia / Références / Type of tool									A derecha / A droite / Right hand		A izquierda / A gauche / Left hand	
∅S	L	L_1	L_2	F	γ	∅D max	R	Ident. N°	MTEC...-R-K10	MTEC...-R-TiAlN	MTEC...-L-K10	MTEC...-L-TiAlN
4	26	3	10	0,50	6°	1,0	0	...410030...	●	●	○	○
							0,02×45°	...41003...	●	●	○	○
4	26	5	10	0,50	6°	1,0	0	...410050...	●	●	●	●
							0,02×45°	...41005...	●	●	●	●
4	31	4	15	0,60	12°	1,2	0	...412040...	●	●	○	○
							0,02×45°	...41204...	●	●	○	○
4	31	7	15	0,60	12°	1,2	0	...412070...	●	●	○	○
							0,02×45°	...41207...	●	●	○	○
4	31	5	15	0,75	12°	1,5	0	...415050...	●	●	○	○
							0,02×45°	...41505...	●	●	○	○
4	31	8	15	0,75	12°	1,5	0	...415080...	●	●	●	●
							0,02×45°	...41508...	●	●	●	●
4	31	5	15	0,90	12°	1,8	0	...418050...	●	●	○	○
							0,03×45°	...41805...	●	●	●	●
4	31	9	15	0,90	12°	1,8	0	...418090...	●	●	●	●
							0,03×45°	...41809...	●	●	●	●
4	31	14	15	0,90	12°	1,8	0	...418140...	●	●	○	○
							0,03×45°	...41814...	●	●	○	○
4	31	6	15	1,10	12°	2,2	0	...422060...	●	●	○	○
							R0,05	...42206...	●	●	○	○
4	31	10	15	1,10	12°	2,2	0	...422100...	●	●	○	○
							R0,05	...42210...	●	●	○	○
4	31	14	15	1,10	12°	2,2	0	...422140...	●	●	○	○
							R0,05	...42214...	●	●	○	○
4	31	6	15	1,25	12°	2,5	0	...425060...	●	●	●	●
							R0,05	...42506...	●	●	●	●
4	31	10	15	1,25	12°	2,5	0	...425100...	●	●	○	○
							R0,05	...42510...	●	●	○	○
4	31	14	15	1,25	12°	2,5	0	...425140...	●	●	○	○
							R0,05	...42514...	●	●	○	○
4	31	8	15	1,60	12°	3,2	0	...432080...	●	●	○	○
							R0,05	...432085...	●	●	○	○
							R0,08	...43208...	●	●	○	○
4	31	12	15	1,60	12°	3,2	0	...432120...	●	●	○	○
							R0,05	...432125...	●	●	○	○
							R0,08	...43212...	●	●	●	●
4	36	17	20	1,60	12°	3,2	0	...432170...	●	●	○	○
							R0,05	...432175...	●	●	○	○
							R0,08	...43217...	●	●	○	○
4	31	10	15	1,95	12°	4,0	0	...440100...	●	●	●	●
							R0,05	...440105...	●	●	●	●
							R0,12	...44010...	●	●	●	●
4	31	14	15	1,95	12°	4,0	0	...440140...	●	●	○	○
							R0,05	...440145...	●	●	○	○
							R0,12	...44014...	●	●	○	○
4	36	19	20	1,95	12°	4,0	0	...440190...	●	●	○	○
							R0,05	...440195...	●	●	○	○
							R0,12	...44019...	●	●	●	●

Nº de pedido: añadir el número de identificación a la referencia, por ejemplo: MTEC-410030-R-K10

● Disponible de stock
○ Plazo de entrega bajo demanda

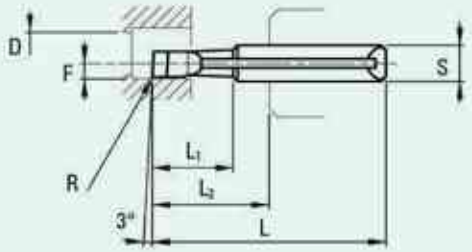
N° de commande: joindre le numéro d'identification à la référence, par exemple: MTEC-410030-R-K10

● Livrable du stock
○ Délai de livraison sur demande

Order number: Add Ident. No. to type of tool, e.g.: MTEC-410030-R-K10

● Available ex stock
○ Delivery time on request

MTEC



γ: Angulo de desprendimiento γ: Angle de coupe γ: Rake angle

Referencia / Référence / Type of tool									A derecha / A droite / Right hand		A izquierda / A gauche / Left hand	
ØS	L	L_1	L_2	F	γ	ØD min.	R	Ident. N°	MTEC...-R-K10	MTEC...-R-TiAlN	MTEC...-L-K10	MTEC...-L-TiAlN
6	48	25	29	1,95	12°	4,0	0	..640250...	●	●	○	○
							R0,05	..640255...	●	●	○	○
							R0,12	..64025..	●	●	○	○
6	53	30	34	1,95	12°	4,0	0	..640300...	●	●	○	○
							R0,05	..640305...	●	●	○	○
							R0,12	..64030..	●	●	○	○
6	35	12	16	2,50	12°	5,0	R0,05	..650125...	●	●	●	●
							R0,15	..65012...	●	●	●	●
6	43	17	24	2,50	12°	5,0	R0,05	..650175...	●	●	●	●
							R0,15	..65017...	●	●	●	●
6	48	25	29	2,50	12°	5,0	R0,05	..650255...	●	●	●	●
							R0,15	..65025...	●	●	●	●
6	53	32	34	2,50	12°	5,0	R0,05	..650325...	●	●	○	○
							R0,15	..65032...	●	●	○	○
6	61	40	42	2,50	12°	5,0	R0,05	..650405...	●	●	○	○
							R0,15	..65040..	●	●	●	●
6	35	12	16	2,95	12°	6,0	R0,05	..660125...	●	●	●	●
							R0,20	..66012...	●	●	●	●
6	43	20	24	2,95	12°	6,0	R0,05	..660205...	●	●	●	●
							R0,20	..66020..	●	●	●	●
6	53	30	34	2,95	12°	6,0	R0,05	..660305...	●	●	●	●
							R0,20	..66030...	●	●	●	●
6	61	40	42	2,95	12°	6,0	R0,05	..660405...	●	●	○	○
							R0,20	..66040...	●	●	○	○
6	71	50	52	2,95	12°	6,0	R0,05	...660505...	●	●	○	○
							R0,20	...66050	●	●	○	○

Nº de pedido: añadir el número de identificación a la referencia, por ejemplo: MTEC-640250-R-K10

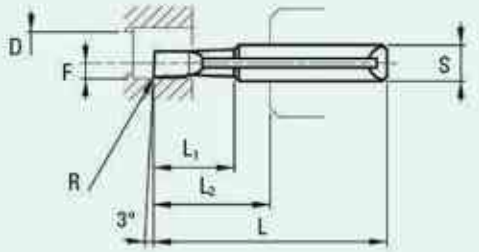
● Disponible de stock
○ Plazo de entrega bajo demanda

Nº de commande: joindre le numéro d'identification à la référence, par exemple: MTEC-640250-R-K10

● Livrable du stock
○ Délai de livraison sur demande

Order number: Add ident. No. to type of tool, e.g.: MTEC-640250-R-K10

● Available ex stock
○ Delivery time on request

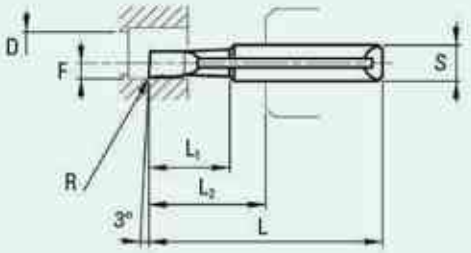


MTEN

γ: Angulo de desprendimiento γ: Angle de coupe γ: Rake angle

A derecha A droite Right hand | A izquierda A gauche Left hand

Referencia / Référence / Type of tool									MTEN...-R-K10	MTEN...-R-TiAlN	MTEN...-L-K10	MTEN...-L-TiAlN
∅S	L	L_1	L_2	F	γ	∅D max	R	Ident. N°				
4	26	0,4	10	0,15	0°	0,3	0	...403010...	●	●	○	○
4	26	0,5	10	0,20	0°	0,4	0	...404010...	●	●	○	○
4	26	0,6	10	0,25	0°	0,5	0	...405010...	●	●	○	○
4	26	1,5	10	0,25	0°	0,5	0	...405020...	●	●	●	●
4	26	0,8	10	0,35	0°	0,7	0	...407010...	●	●	○	○
4	26	2	10	0,35	0°	0,7	0 0,02×45°	...407020... ...40702...	● ●	● ●	● ●	● ●
4	26	1,2	10	0,50	0°	1,0	0	...410020...	●	●	○	○
4	26	3	10	0,50	0°	1,0	0 0,02×45°	...410030... ...41003...	● ●	● ●	● ○	● ○
4	26	5	10	0,50	0°	1,0	0 0,02×45°	...410050... ...41005...	● ●	● ●	● ●	● ●
4	26	2	10	0,60	0°	1,2	0	...412020...	●	●	○	○
4	31	4	15	0,60	0°	1,2	0 0,02×45°	...412040... ...41204...	● ●	● ●	● ○	● ○
4	31	7	15	0,60	0°	1,2	0 0,02×45°	...412070... ...41207...	● ●	● ●	● ●	● ●
4	26	3	10	0,75	0°	1,5	0	...415030...	●	●	○	○
4	31	5	15	0,75	0°	1,5	0 0,02×45°	...415050... ...41505...	● ●	● ●	● ●	● ●
4	31	8	15	0,75	0°	1,5	0 0,02×45°	...415080... ...41508...	● ●	● ●	● ●	● ●
4	26	4	10	0,90	0°	1,8	0	...418040...	●	●	○	○
4	31	5	15	0,90	0°	1,8	0 0,03×45°	...418050... ...41805...	● ●	● ●	● ●	● ●
4	31	9	15	0,90	0°	1,8	0 0,03×45°	...418090... ...41809...	● ●	● ●	● ●	● ●
4	31	14	15	0,90	0°	1,8	0 0,03×45°	...418140... ...41814...	● ●	● ●	○ ○	○ ○
4	31	6	15	1,10	0°	2,2	0 R0,05	...422060... ...42206...	● ●	● ●	○ ○	○ ○
4	31	10	15	1,10	0°	2,2	0 R0,05	...422100... ...42210...	● ●	● ●	○ ○	○ ○
4	31	14	15	1,10	0°	2,2	0 R0,05	...422140... ...42214...	● ●	● ●	○ ○	○ ○
4	31	6	15	1,25	0°	2,5	0 R0,05	...425060... ...42506...	● ●	● ●	● ●	● ●
4	31	10	15	1,25	0°	2,5	0 R0,05	...425100... ...42510...	● ●	● ●	● ●	● ●
4	31	14	15	1,25	0°	2,5	0 R0,05	...425140... ...42514	● ●	● ●	○ ○	○ ○



MTEN

γ: Angulo de desprendimiento | γ: Angle de coupe | γ: Rake angle

Referencia / Référence / Type of tool									A derecha / A droite / Right hand		A izquierda / A gauche / Left hand	
ØS	L	L_1	L_2	F	γ	$ØD_{máx.}$	R	Ident. N°	MTEN...-R-K10	MTEN...-R-TiAlN	MTEN...-L-K10	MTEN...-L-TiAlN
4	31	8	15	1,60	0°	3,2	0	...432080...	●	●	●	●
							R0,05	...432085...	●	●	●	●
							R0,08	...43208...	●	●	●	●
4	31	12	15	1,60	0°	3,2	0	...432120...	●	●	●	●
							R0,05	...432125...	●	●	●	●
							R0,08	...43212...	●	●	●	●
4	36	17	20	1,60	0°	3,2	0	...432170...	●	●	○	○
							R0,05	...432175...	●	●	○	○
							R0,08	...43217...	●	●	○	○
4	31	10	15	1,95	0°	4,0	0	...440100...	●	●	●	●
							R0,05	...440105...	●	●	●	●
							R0,12	...44010...	●	●	●	●
4	31	14	15	1,95	0°	4,0	0	...440140...	●	●	●	●
							R0,05	...440145...	●	●	●	●
							R0,12	...44014...	●	●	●	●
4	36	19	20	1,95	0°	4,0	0	...440190...	●	●	●	●
							R0,05	...440195...	●	●	●	●
							R0,12	...44019...	●	●	●	●
6	48	25	29	1,95	0°	4,0	0	...640250...	●	●	○	○
							R0,05	...640255...	●	●	○	○
							R0,12	...64025...	●	●	○	○
6	53	30	34	1,95	0°	4,0	0	...640300...	●	●	○	○
							R0,05	...640305...	●	●	○	○
							R0,12	...64030...	●	●	○	○
6	35	12	16	2,50	0°	5,0	R0,05	...650125...	●	●	●	●
							R0,15	...65012...	●	●	●	●
6	43	17	24	2,50	0°	5,0	R0,05	...650175...	●	●	●	●
							R0,15	...65017...	●	●	●	●
6	48	25	29	2,50	0°	5,0	R0,05	...650255...	●	●	●	●
							R0,15	...65025...	●	●	●	●
6	53	32	34	2,50	0°	5,0	R0,05	...650325...	●	●	○	○
							R0,15	...65032...	●	●	○	○
6	61	40	42	2,50	0°	5,0	R0,05	...650405...	●	●	○	○
							R0,15	...65040...	●	●	○	○
6	35	12	16	2,95	0°	6,0	R0,05	...660125...	●	●	●	●
							R0,20	...66012...	●	●	●	●
6	43	20	24	2,95	0°	6,0	R0,05	...660205...	●	●	●	●
							R0,20	...66020...	●	●	●	●
6	53	30	34	2,95	0°	6,0	R0,05	...660305...	●	●	●	●
							R0,20	...66030...	●	●	●	●
6	61	40	42	2,95	0°	6,0	R0,05	...660405...	●	●	○	○
							R0,20	...66040...	●	●	○	○
6	71	50	52	2,95	0°	6,0	R0,05	...660505...	●	●	○	○
							R0,20	...66050	●	●	○	○

N° de pedido: añadir el número de identificación a la referencia, por ejemplo: MTEN-432080-R-K10

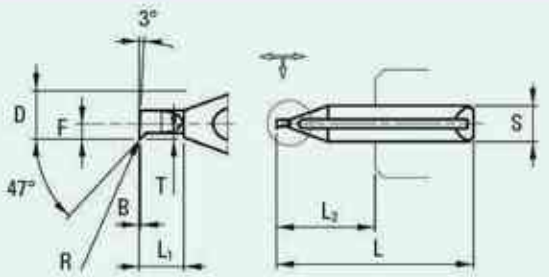
● Disponible de stock
○ Plazo de entrega bajo demanda

N° de commande: joindre le numéro d'identification à la référence, par exemple: MTEN-432080-R-K10

● Livrable du stock
○ Délai de livraison sur demande

Order number: Add ident. No. to type of tool, e.g.: MTEN-432080-R-K10

● Available ex stock
○ Delivery time on request



MTKN

γ: Angulo de desprendimiento γ: Angle de coupe γ: Rake angle

Referencia / Référence / Type of tool										A derecha / A droite / Right hand		A izquierda / A gauche / Left hand	
										MTKN...-R-K10	MTKN...-R-TiAlN	MTKN...-L-K10	MTKN...-L-TiAlN
∅S	L	L_1	L_2	B	T	F	γ	$∅D_{min}$	Ident. N°				
4	26	0,6	10	0,02	0,05	0,15	0°	0,3	...40301...	●	●	○	○
4	26	1,0	10	0,02	0,05	0,15	0°	0,3	...40302...	●	●	○	○
4	26	0,8	10	0,02	0,07	0,20	0°	0,4	...40401...	●	●	○	○
4	26	1,3	10	0,02	0,07	0,20	0°	0,4	...40402...	●	●	○	○
4	26	1,0	10	0,02	0,10	0,25	0°	0,5	...40501...	●	●	○	○
4	26	1,6	10	0,02	0,10	0,25	0°	0,5	...40502...	●	●	○	○
4	26	1,2	10	0,02	0,12	0,30	0°	0,6	...40601...	●	●	○	○
4	26	2,0	10	0,02	0,12	0,30	0°	0,6	...40602...	●	●	○	○
4	26	1,2	10	0,02	0,15	0,35	0°	0,7	...40701...	●	●	○	○
4	26	2,2	10	0,02	0,15	0,35	0°	0,7	...40702...	●	●	○	○
4	26	1,4	10	0,03	0,17	0,40	0°	0,8	...40801...	●	●	○	○
4	26	2,5	10	0,03	0,17	0,40	0°	0,8	...40802...	●	●	○	○
4	26	1,5	10	0,05	0,20	0,50	0°	1,0	...41002...	●	●	○	○
4	26	3,1	10	0,05	0,20	0,50	0°	1,0	...41003...	●	●	○	○
∅S	L	L_1	L_2	R	T	F	γ	$∅D_{min}$	Ident. N°				
4	26	2,0	10	0,03	0,30	0,60	0°	1,2	...41202...	●	●	○	○
4	26	3,7	10	0,03	0,30	0,60	0°	1,2	...41204...	●	●	○	○
4	26	3,0	10	0,03	0,40	0,75	0°	1,5	...41503...	●	●	○	○
4	26	4,6	10	0,03	0,40	0,75	0°	1,5	...41505...	●	●	○	○
4	26	4,0	10	0,03	0,50	0,90	0°	1,8	...41804...	●	●	○	○
4	26	5,5	10	0,03	0,50	0,90	0°	1,8	...41806...	●	●	○	○

Nº de pedido: añadir el número de identificación a la referencia, por ejemplo: MTKN-40301-R-K10

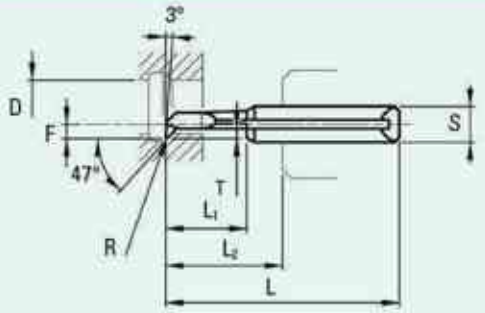
● Disponible de stock
○ Plazo de entrega bajo demanda

N° de commande: joindre le numéro d'identification à la référence, par exemple: MTKN-40301-R-K10

● Livrable du stock
○ Délai de livraison sur demande

Order number: Add Ident. No. to type of tool, e.g.: MTKN-40301-R-K10

● Available ex stock
○ Delivery time on request



MTKH

γ: Angulo de desprendimiento γ: Angle de coupe γ: Rake angle

Referencia / Référence / Type of tool										A derecha / A droite / Right hand		A izquierda / A gauche / Left hand	
ØS	L	L_1	L_2	R	T	F	γ	$ØD_{min}$	Ident. N°	MTKH...-R-K10	MTKH...-R-TiAlN	MTKH...-L-K10	MTKH...-L-TiAlN
4	31	4	15	0,05	0,5	1,00	8°	2,0	...42004...	●	●	○	○
4	31	6	15	0,05	0,5	1,25	8°	2,5	...42506...	●	●	●	●
4	31	10	15	0,05	0,5	1,25	8°	2,5	...42510...	●	●	●	●
4	31	8	15	0,08	0,6	1,60	8°	3,2	...43208...	●	●	○	○
4	31	12	15	0,08	0,6	1,60	8°	3,2	...43212...	●	●	●	●
4	36	17	20	0,08	0,6	1,60	8°	3,2	...43217...	●	●	○	○
4	31	10	15	0,12	0,8	1,95	8°	4,0	...44010...	●	●	○	○
4	31	14	15	0,12	0,8	1,95	8°	4,0	...44014...	●	●	●	●
4	36	19	20	0,12	0,8	1,95	8°	4,0	...44019...	●	●	○	○
6	48	25	29	0,12	0,8	1,95	8°	4,0	...64025...	●	●	○	○
6	53	30	34	0,12	0,8	1,95	8°	4,0	...64030...	●	●	○	○
6	35	12	16	0,15	1,2	2,50	8°	5,0	...65012...	●	●	○	○
6	43	17	24	0,15	1,2	2,50	8°	5,0	...65017...	●	●	○	○
6	48	25	29	0,15	1,2	2,50	8°	5,0	...65025...	●	●	●	●
6	53	32	34	0,15	1,2	2,50	8°	5,0	...65032...	●	●	○	○
6	61	40	42	0,15	1,2	2,50	8°	5,0	...65040...	●	●	○	○
6	35	12	16	0,20	1,45	2,95	8°	6,0	...66012...	●	●	○	○
6	43	20	24	0,20	1,45	2,95	8°	6,0	...66020...	●	●	○	○
6	53	30	34	0,20	1,45	2,95	8°	6,0	...66030...	●	●	○	○
6	61	40	42	0,20	1,45	2,95	8°	6,0	...66040...	●	●	○	○
6	71	50	52	0,20	1,45	2,95	8°	6,0	...66050...	●	●	○	○

Nº de pedido: añadir el número de identificación a la referencia, por ejemplo: MTKH-42004-R-K10

● Disponible de stock
○ Plazo de entrega bajo demanda

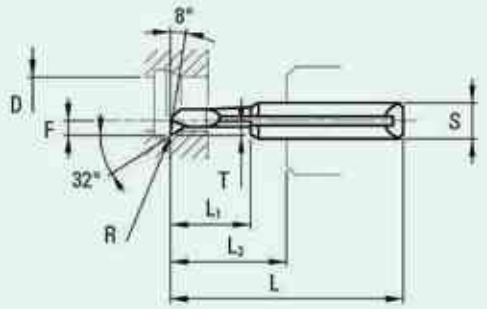
Nº de commande: joindre le numéro d'identification à la référence, par exemple: MTKH-42004-R-K10

● Livrable du stock
○ Délai de livraison sur demande

Order number: Add ident. No. to type of tool, e.g.: MTKH-42004-R-K10

● Available ex stock
○ Delivery time on request

Herramientas de copiar 8° / 32° — Outils à copier 8° / 32° — Copying tools 8° / 32°

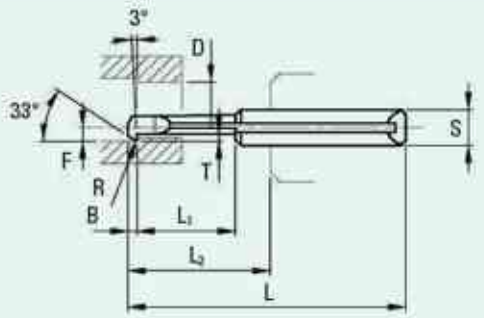


MTKO

γ: Angulo de desprendimiento — γ: Angle de coupe — γ: Rake angle

Referencia / Référence / Type of tool										A derecha / A droite / Right hand		A izquierda / A gauche / Left hand	
∅S	L	L_1	L_2	R	T	F	γ	$∅D_{max}$	Ident. N°	MTKO...-R-K10	MTKO...-R-TiAlN	MTKO...-L-K10	MTKO...-L-TiAlN
4	31	4	15	0,05	0,5	1,00	8°	2,0	...42004...	●	●	○	○
4	31	6	15	0,05	0,6	1,25	8°	2,5	...42506...	●	●	●	●
4	31	10	15	0,05	0,6	1,25	8°	2,5	...42510...	●	●	●	●
4	31	8	15	0,08	0,8	1,60	8°	3,2	...43208...	●	●	●	●
4	31	12	15	0,08	0,8	1,60	8°	3,2	...43212...	●	●	●	●
4	36	17	20	0,08	0,8	1,60	8°	3,2	...43217...	●	●	○	○
4	31	10	15	0,12	0,8	1,95	8°	4,0	...44010...	●	●	●	●
4	31	14	15	0,12	0,8	1,95	8°	4,0	...44014...	●	●	●	●
4	36	19	20	0,12	0,8	1,95	8°	4,0	...44019...	●	●	●	●
6	48	25	29	0,12	0,8	1,95	8°	4,0	...64025...	●	●	○	○
6	53	30	34	0,12	0,8	1,95	8°	4,0	...64030...	●	●	○	○
6	35	12	16	0,15	1,2	2,50	8°	5,0	...65012...	●	●	●	●
6	43	17	24	0,15	1,2	2,50	8°	5,0	...65017...	●	●	●	●
6	48	25	29	0,15	1,2	2,50	8°	5,0	...65025...	●	●	●	●
6	53	32	34	0,15	1,2	2,50	8°	5,0	...65032...	●	●	○	○
6	61	40	42	0,15	1,2	2,50	8°	5,0	...65040...	●	●	○	○
6	35	12	16	0,20	1,45	2,95	8°	6,0	...66012...	●	●	○	○
6	43	20	24	0,20	1,45	2,95	8°	6,0	...66020...	●	●	●	●
6	48	30	34	0,20	1,45	2,95	8°	6,0	...66030...	●	●	●	●
6	61	40	42	0,20	1,45	2,95	8°	6,0	...66040...	●	●	○	○
6	71	50	52	0,20	1,45	2,95	8°	6,0	...66050...	●	●	○	○

Herramientas de tornear hacia atrás — Tournage en tirant — Backboring



MTKR

Angulo de desprendimiento 0° — Angle de coupe 0° — Rake angle 0°

Referencia / Référence / Type of tool										A derecha / A droite / Right hand	
∅S	L	L_1	L_2	R	T	B	F	$∅D_{max}$	Ident. N°	MTKR...-R-K10	MTKR...-R-TiAlN
4	31	6	15	0,05	0,5	0,6	1,00	2,0	...42006...	●	●
4	31	10	15	0,05	0,6	0,8	1,15	2,5	...42510...	●	●
4	31	12	15	0,08	0,8	1,0	1,50	3,2	...43212...	●	●
4	36	17	20	0,12	1,0	1,2	1,90	4,0	...44017...	●	●
6	48	22	25	0,15	1,2	1,5	2,40	5,0	...65022...	●	●
6	53	25	32	0,20	1,5	1,8	2,85	6,0	...66025...	●	●

Nº de pedido: añadir el número de identificación a la referencia, por ejemplo: MTKO-42004-R-K10

● Disponible de stock
○ Plazo de entrega bajo demanda

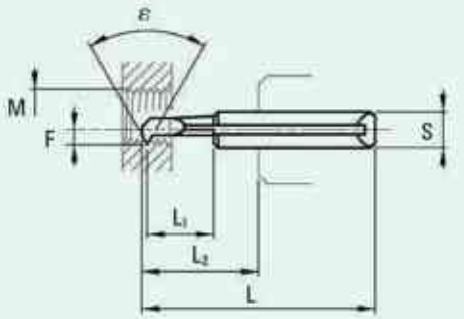
N° de commande: joindre le numéro d'identification à la référence, par exemple: MTKO-42004-R-K10

● Livrable du stock
○ Délai de livraison sur demande

Order number: Add Ident. No. to type of tool, e.g.: MTKO-42004-R-K10

● Available ex stock
○ Delivery time on request

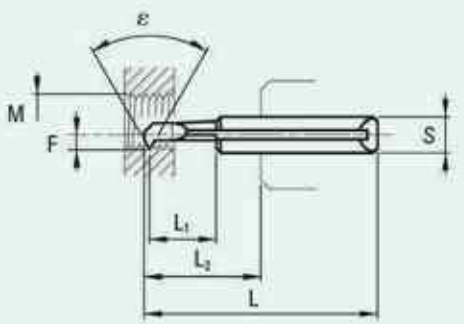
Herramientas de roscar 60° — Outils à fileter 60° — Threading tools 60°



MTGE

Referencia / Référence / Type of tool										A derecha / A droite / Right hand		A izquierda / A gauche / Left hand	
∅S	L	L_1	L_2	ε	M	P	F	$∅D_{min}$	Ident. N°	MTGE...-R-K20	MTGE...-R-TiAlN	MTGE...-L-K20	MTGE...-L-TiAlN
4	26	2,3	10	60°	M1,6	0,2-0,4	0,60	1,2	...41203...	●	●	○	○
4	26	3,7	10	60°	M2	0,2-0,5	0,80	1,6	...41604...	●	●	○	○
4	31	5,1	15	60°	M3	0,2-0,5	1,10	2,2	...42206...	●	●	●	●
4	31	7,5	15	60°	M4	0,5-0,8	1,60	3,2	...43208...	●	●	●	●
4	31	9,4	15	60°	M5	0,75-1,0	1,95	4,0	...44010...	●	●	●	●
4	31	13,4	15	60°	M5	0,75-1,0	1,95	4,0	...44014...	●	●	●	●
6	35	11,1	16	60°	M6	0,75-1,25	2,50	5,0	...65012...	●	●	●	●
6	43	16,1	24	60°	M6	0,75-1,25	2,50	5,0	...65017...	●	●	●	●
6	35	11	16	60°	M8	1,0-1,75	2,95	6,0	...66012...	●	●	●	●
6	43	19	24	60°	M8	1,0-1,75	2,95	6,0	...66020...	●	●	●	●
6	53	29	34	60°	M8	1,0-1,75	2,95	6,0	...66030...	●	●	●	●

Herramientas de roscar 55° — Outils à fileter 55° — Threading tools 55°



MTGW

Referencia / Référence / Type of tool										A derecha / A droite / Right hand		A izquierda / A gauche / Left hand	
∅S	L	L_1	L_2	ε	M	P	F	$∅D_{min}$	Ident. N°	MTGW...-R-K20	MTGW...-R-TiAlN	MTGW...-L-K20	MTGW...-L-TiAlN
4	31	9,4	15	55°	W 7/32"	20-28	1,95	4,0	...44010...	●	●		
6	35	11,1	16	55°	W 5/16"	18-26	2,50	5,0	...65012...	●	●		
6	43	19	24	55°	W 3/8"	16-22	2,95	6,0	...66020...	●	●		

Nº de pedido: añadir el número de identificación a la referencia, por ejemplo: MTGE-41203-R-K10

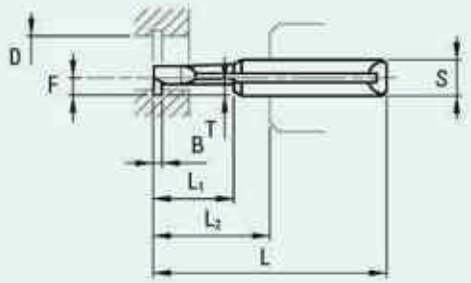
● Disponible de stock
○ Plazo de entrega bajo demanda

Nº de commande: joindre le numéro d'identification à la référence, par exemple: MTGE-41203-R-K10

● Livrable du stock
○ Délai de livraison sur demande

Order number: Add ident. No. to type of tool, e.g.: MTGE-41203-R-K10

● Available ex stock
○ Delivery time on request



MTNU

γ: Angulo de desprendimiento γ: Angle de coupe γ: Rake angle

Referencia / Référence / Type of tool										A derecha / A droite / Right hand		A izquierda / A gauche / Left hand	
∅S	L	L_1	L_2	T	B	F	γ	$∅D_{max}$	Ident. N°	MTNU...-R-K10	MTNU...-R-TiAlN	MTNU...-L-K10	MTNU...-L-TiAlN
4	31	6	15	0,5	0,6	1,00	12°	2,0	...42006...	●	●	●	●
4	31	8	15	0,6	0,8	1,25	12°	2,5	...42508...	●	●	●	●
4	31	8	15	0,8	1,0	1,60	12°	3,2	...43208...	●	●	●	●
4	31	12	15	0,8	1,0	1,60	12°	3,2	...43212...	●	●	●	●
4	36	17	20	0,8	1,0	1,60	12°	3,2	...43217...	●	●	○	○
4	31	10	15	0,8	1,0	1,95	12°	4,0	...44010...	●	●	●	●
4	31	14	15	0,8	1,0	1,95	12°	4,0	...44014...	●	●	●	●
4	36	19	20	0,8	1,0	1,95	12°	4,0	...44019...	●	●	●	●
6	48	25	29	0,8	1,0	1,95	12°	4,0	...64025...	●	●	○	○
6	53	30	34	0,8	1,0	1,95	12°	4,0	...64030...	●	●	○	○
6	35	12	16	1,5	1,2	2,50	12°	5,0	...65012...	●	●	●	●
6	43	17	24	1,5	1,2	2,50	12°	5,0	...65017...	●	●	●	●
6	48	25	29	1,5	1,2	2,50	12°	5,0	...65025...	●	●	○	○
6	53	32	34	1,5	1,2	2,50	12°	5,0	...65032...	●	●	○	○
6	61	40	42	1,5	1,2	2,50	12°	5,0	...65040...	●	●	○	○
6	35	12	16	2,0	1,5	2,95	12°	6,0	...66012...	●	●	●	●
6	43	20	24	2,0	2,0	2,95	12°	6,0	...66020...	●	●	●	●
6	53	30	34	2,0	2,0	2,95	12°	6,0	...66030...	●	●	○	○
6	61	40	42	2,0	2,0	2,95	12°	6,0	...66040...	●	●	○	○

N° de pedido: añadir el número de identificación a la referencia, por ejemplo: MTNU-42006-R-K10

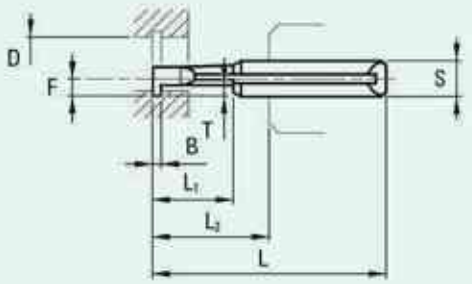
● Disponible de stock
○ Plazo de entrega bajo demanda

N° de commande: joindre le numéro d'identification à la référence, par exemple: MTNU-42006-R-K10

● Livrable du stock
○ Délai de livraison sur demande

Order number: Add Ident. No. to type of tool, e.g.: MTNU-42006-R-K10

● Available ex stock
○ Delivery time on request



MTNN

γ: Angulo de desprendimiento γ: Angle de coupe γ: Rake angle

Referencia / Référence / Type of tool										A derecha / A droite / Right hand		A izquierda / A gauche / Left hand	
∅S	L	L_1	L_2	T	B	F	γ	$∅D_{min}$	Ident. N°	MTNN...-R-K10	MTNN...-R-TiAlN	MTNN...-L-K10	MTNN...-L-TiAlN
4	26	0,6	10	0,05	0,1	0,15	0°	0,3	...40301...	●	●	○	○
4	26	0,8	10	0,07	0,1	0,20	0°	0,4	...40401...	●	●	○	○
4	26	1,0	10	0,10	0,15	0,25	0°	0,5	...40501...	●	●	○	○
4	26	1,2	10	0,15	0,2	0,35	0°	0,7	...40701...	●	●	○	○
4	26	1,4	10	0,17	0,25	0,30	0°	0,8	...40801...	●	●	○	○
4	26	1,5	10	0,2	0,3	0,50	0°	1,0	...41002...	●	●	○	○
4	26	2	10	0,3	0,4	0,60	0°	1,2	...41202...	●	●	○	○
4	26	3	10	0,4	0,4	0,75	0°	1,5	...41503...	●	●	○	○
4	26	4	10	0,5	0,5	0,90	0°	1,8	...41804...	●	●	○	○
4	31	6	15	0,5	0,6	1,00	0°	2,0	...42006...	●	●	○	○
4	31	8	15	0,6	0,8	1,25	0°	2,5	...42508...	●	●	●	●
4	31	8	15	0,8	1,0	1,60	0°	3,2	...43208...	●	●	●	●
4	31	12	15	0,8	1,0	1,60	0°	3,2	...43212...	●	●	●	●
4	36	17	20	0,8	1,0	1,60	0°	3,2	...43217...	●	●	○	○
4	31	10	15	0,8	1,0	1,95	0°	4,0	...44010...	●	●	●	●
4	31	14	15	0,8	1,0	1,95	0°	4,0	...44014...	●	●	○	○
4	36	19	20	0,8	1,0	1,95	0°	4,0	...44019...	●	●	●	●
6	48	25	29	0,8	1,0	1,95	0°	4,0	...64025...	●	●	○	○
6	53	30	34	0,8	1,0	1,95	0°	4,0	...64030...	●	●	○	○
6	35	12	16	1,5	1,2	2,50	0°	5,0	...65012...	●	●	○	○
6	43	17	24	1,5	1,2	2,50	0°	5,0	...65017...	●	●	●	●
6	48	25	29	1,5	1,2	2,50	0°	5,0	...65025...	●	●	○	○
6	53	32	34	1,5	1,2	2,50	0°	5,0	...65032...	●	●	○	○
6	61	40	42	1,5	1,2	2,50	0°	5,0	...65040...	●	●	○	○
6	35	12	16	2,0	1,5	2,95	0°	6,0	...66012...	●	●	○	○
6	43	20	24	2,0	2,0	2,95	0°	6,0	...66020...	●	●	●	●
6	53	30	34	2,0	2,0	2,95	0°	6,0	...66030...	●	●	○	○
6	61	40	42	2,0	2,0	2,95	0°	6,0	...66040...	●	●	○	○

N° de pedido: añadir el número de identificación a la referencia, por ejemplo: MTNN-40301-R-K10

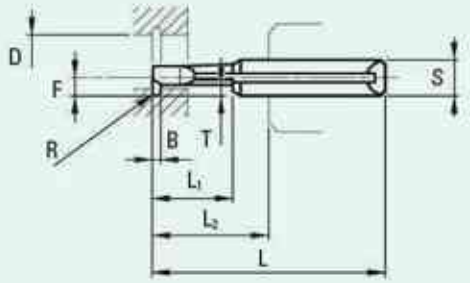
● Disponible de stock
○ Plazo de entrega bajo demanda

N° de commande: joindre le numéro d'identification à la référence, par exemple: MTNN-40301-R-K10

● Livrable du stock
○ Délai de livraison sur demande

Order number: Add ident. No. to type of tool, e.g.: MTNN-40301-R-K10

● Available ex stock
○ Delivery time on request



MTNR

γ: Angulo de desprendimiento | γ: Angle de coupe | γ: Rake angle

Referencia / Référence / Type of tool											A derecha / A droite / Right hand		A izquierda / A gauche / Left hand	
∅S	L	L_1	L_2	T	B	F	R	γ	$∅D_{máx}$	Ident. N°	MTNR...-R-K10	MTNR...-R-TiAlN	MTNR...-L-K10	MTNR...-L-TiAlN
4	31	6	15	0,6	0,8	1,25	0,4	6°	2,5	...425064...	●	●	○	○
4	31	8	15	0,8	1,0	1,60	0,5	6°	3,2	...432085...	●	●	○	○
4	31	12	15	0,8	1,0	1,60	0,5	6°	3,2	...432125...	●	●	○	○
4	31	10	15	0,8	1,0	1,95	0,5	6°	4,0	...440105...	●	●	○	○
4	31	14	15	0,8	1,0	1,95	0,5	6°	4,0	...440145...	●	●	○	○
4	36	19	20	0,8	1,0	1,95	0,5	6°	4,0	...440195...	●	●	○	○
6	35	12	16	1,5	1,0	2,50	0,5	6°	5,0	...650125...	●	●	○	○
6	35	12	16	1,5	1,5	2,50	0,75	6°	5,0	...650127...	●	●	○	○
6	35	12	16	1,5	2,0	2,50	1,0	6°	5,0	...650129...	●	●	○	○
6	43	17	24	1,5	1,0	2,50	0,5	6°	5,0	...650175...	●	●	○	○
6	43	17	24	1,5	1,5	2,50	0,75	6°	5,0	...650177...	●	●	○	○
6	43	17	24	1,5	2,0	2,50	1,0	6°	5,0	...650179...	●	●	○	○
6	43	20	24	2,0	1,0	2,95	0,5	6°	6,0	...660205...	●	●	○	○
6	43	20	24	2,0	1,5	2,95	0,75	6°	6,0	...660207...	●	●	○	○
6	43	20	24	2,0	2,0	2,95	1,0	6°	6,0	...660209...	●	●	○	○

Nº de pedido: añadir el número de identificación a la referencia, por ejemplo: MTNR-425064-R-K10

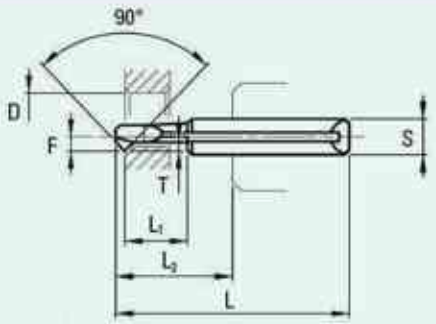
● Disponible de stock
○ Plazo de entrega bajo demanda

N° de commande: joindre le numéro d'identification à la référence, par exemple: MTNR-425064-R-K10

● Livrable du stock
○ Délai de livraison sur demande

Order number: Add Ident. No. to type of tool, e.g.: MTNR-425064-R-K10

● Available ex stock
○ Delivery time on request



MTFA

γ: Angulo de desprendimiento | γ: Angle de coupe | γ: Rake angle

Referencia / Référence / Type of tool									A derecha / A droite / Right hand		A izquierda / A gauche / Left hand	
									MTFA...-R-K10	MTFA...-R-TiAlN	MTFA...-L-K10	MTFA...-L-TiAlN
∅S	L	L_1	L_2	T	F	γ	$∅D_{min}$	Ident. N°				
4	31	5,4	15	0,5	1,00	8°	2,0	...42006...	●	●	○	○
4	31	7,3	15	0,6	1,25	8°	2,5	...42508...	●	●	○	○
4	31	11	15	0,8	1,60	8°	3,2	...43212...	●	●	●	●
4	31	13	15	0,8	1,95	8°	4,0	...44014...	●	●	●	●
4	36	18	20	0,8	1,95	8°	4,0	...44019...	●	●	●	●
6	43	15,4	24	1,45	2,50	8°	5,0	...65017...	●	●	●	●
6	43	18,4	24	1,45	2,95	8°	6,0	...66020...	●	●	●	●
6	53	28,4	34	1,45	2,95	8°	6,0	...66030...	●	●	●	●

N° de pedido: añadir el número de identificación a la referencia, por ejemplo: MTFA-42006-R-K10

● Disponible de stock
○ Plazo de entrega bajo demanda

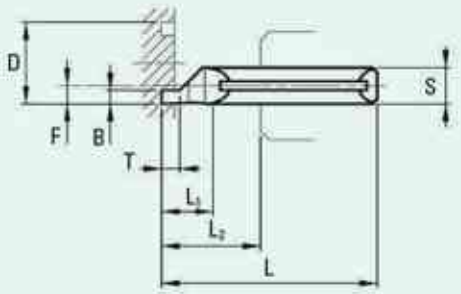
N° de commande: joindre le numéro d'identification à la référence, par exemple: MTFA-42006-R-K100

● Livrable du stock
○ Délai de livraison sur demande

Order number: Add ident. No. to type of tool, e.g.: MTFA-42006-R-K10

● Available ex stock
○ Delivery time on request

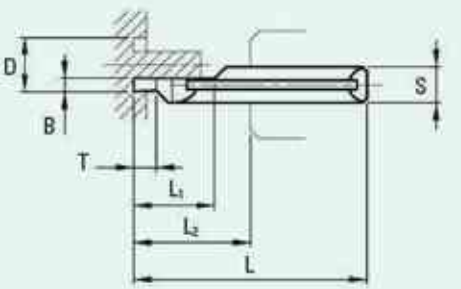
MTNX



γ: Angulo de desprendimiento γ: Angle de coupe γ: Rake angle

Referencia / Référence / Type of tool										A derecha / A droite / Right hand		A izquierda / A gauche / Left hand	
ØS	L	L_1	L_2	T	B	F	γ	$ØD_{máx.}$	Ident. Nº	MTNX...-R-K10	MTNX...-R-TiAlN	MTNX...-L-K10	MTNX...-L-TiAlN
4	26	3	10	1,2	0,7	1,95	6°	4,0	...40710...	●	●	○	○
4	26	5	10	1,5	1,0	1,95	8°	6,0	...41015...	●	●	●	●
4	26	7	10	2,0	1,5	1,95	8°	6,0	...41520...	●	●	●	●
6	35	8	16	2,5	1,5	2,95	8°	8,0	...61525...	●	●	●	●
6	35	10	16	3,0	2,0	2,95	8°	8,0	...62030...	●	●	●	●

MTNY



γ: Angulo de desprendimiento γ: Angle de coupe γ: Rake angle

									A derecha / A droite / Right hand		A izquierda / A gauche / Left hand	
									MTNY...-R-K10	MTNY...-R-TiAlN	MTNY...-L-K10	MTNY...-L-TiAlN
ØS	L	L_1	L_2	T	B	γ	$ØD_{máx.}$	Ident. Nº				
4	26	6	10	1,2	0,7	6°	4,0	...40710...	●	●	○	○
4	31	8	15	1,5	1,0	8°	6,0	...41015...	●	●	●	●
4	31	12	15	2,0	1,5	8°	6,0	...41520...	●	●	●	●
6	35	14	16	2,5	1,5	8°	8,0	...61525...	●	●	●	●
6	43	20	24	3,0	2,0	8°	8,0	...62030...	●	●	●	●

Nº de pedido: añadir el número de identificación a la referencia, por ejemplo: MTNX-40710-R-K10

● Disponible de stock
○ Plazo de entrega bajo demanda

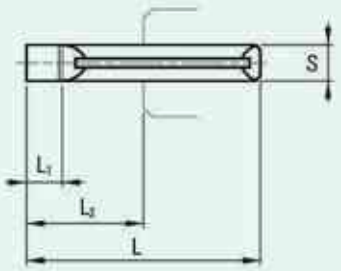
Nº de commande: joindre le numéro d'identification à la référence, par exemple: MTNX-40710-R-K10

● Livrable du stock
○ Délai de livraison sur demande

Order number: Add Ident. No. to type of tool, e.g.: MTNX-40710-R-K10

● Available ex stock
○ Delivery time on request

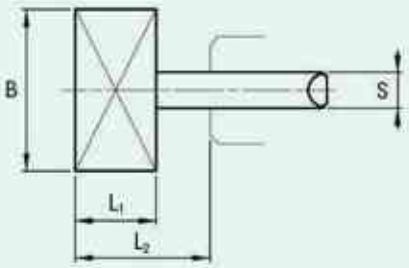
MTRO



γ: Angulo de desprendimiento γ: Angle de coupe γ: Rake angle

Referencia / Référence / Type of tool						MTRO...-K10
ØS	L	L_1	L_2	γ	Ident. N°	
4	26	4	10	0°	...40010...	●
4	31	4	15	0°	...40015...	●
6	43	6	23	0°	...60023...	●

MTRP



γ: Angulo de desprendimiento γ: Angle de coupe γ: Rake angle

Referencia / Référence / Type of tool					MTRP-...
ØS	L_1	L_2	B	Ident. N°	
4	10	17	20	...00004	●
6	10	18	20	...00006	●

Nº de pedido: añadir el número de identificación a la referencia, por ejemplo: MTRO-40010-R-K10

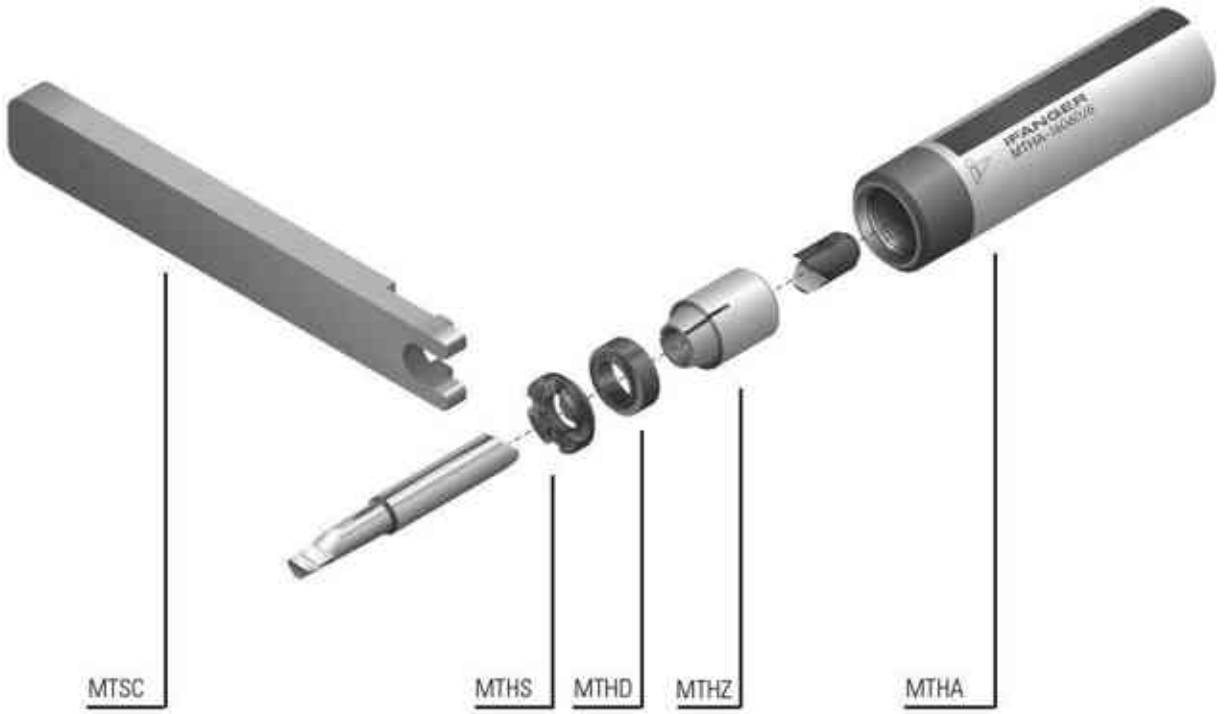
● Disponible de stock
○ Plazo de entrega bajo demanda

N° de commande: joindre le numéro d'identification à la référence, par exemple: MTRO-40010-R-K10

● Livrable du stock
○ Délai de livraison sur demande

Order number: Add ident. No. to type of tool, e.g.: MTRO-40010-R-K10

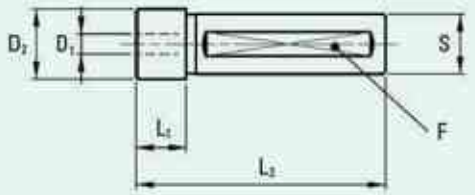
● Available ex stock
○ Delivery time on request



El prisma de orientación está alineado y montado con el porta-herramientas de fábrica y no se debe desmontar. No está en venta como pieza de recambio.

Le prisme d'orientation est aligné et monté avec le porte-outil d'usine et ne devrait pas être desserré. Il n'est pas en vente comme pièce de rechange.

The tool positioner is bolted down stable in the holder and should not be unfixed. It is not available as a spare part.



MTHA

Con refrigeración Avec arrosage With coolant capability

Referencia / Référence / Type of holder							MTHA...	MTHA...	MTHA...
∅S	∅D1	L1	L2	∅D2	F	Ident. N°		Máquina/Machine/Machine	Máquina/Machine/Machine
7	4	25	49	14	1x	...07049/4	●		
8	4	21	60	14	1x	...08060/4	●		
10	4	21	60	14	1x	...10060/4	●		
10	6	25	60	16	1x	...10060/6	●		
12	4	10	50	14	1x	...12050/4	●		
12	4	10	90	14	1x	...12090/4	●		
12	6	25	60	16	1x	...12060/6	●		
5/8"	4	-	50	5/8"	1x	...15050/4		● Citizen R04 / R07	
16	4	10	50	14	1x	...16050/4	●		
16	4	10	52	14	4x	...16052/4		● Tornos Micro	
16	4	10	90	14	1x	...16090/4	●		
16	6	10	60	15,8	1x	...16060/6	●		
16	6	10	90	15,8	1x	...16090/6	●		
3/4"	4	20	70	18,6	2x	...19070/4		● Citizen	
3/4"	6	20	70	18,6	2x	...19070/6		● Citizen	
3/4"	4	20	90	18,6	3x	...19090/4		● Citizen	
3/4"	6	20	90	18,6	3x	...19090/6		● Citizen	
3/4"	4	20	145	18,6	2x	...19145/4		● Citizen	
3/4"	6	20	145	18,6	2x	...19145/6		● Citizen	
20	4	20	70	19,6	2x	...20070/4	●		
20	6	20	70	19,6	2x	...20070/6	●		
20	4	20	160	19,6	2x	...20160/4		● Tornos DECO	
20	6	20	160	19,6	2x	...20160/6		● Tornos DECO	
20	4	20	161	19,6	-	...20161/4			● Tornos DECO
20	6	20	161	19,6	-	...20161/6			● Tornos DECO
22	4	20	90	21,6	2x	...22090/4		● Star, Tornos	
22	6	20	90	21,6	2x	...22090/6		● Star, Tornos	
22	4	20	130	21,6	2x	...22130/4		● Star, Tornos	
22	6	20	130	21,6	2x	...22130/6		● Star, Tornos	
25	4	20	80	24,6	1x	...25080/4	●		
25	6	20	80	24,6	1x	...25080/6	●		
25	4	20	100	24,6	1x	...25100/4	●		
25	6	20	100	24,6	1x	...25100/6	●		
25	4	20	170	24,6	4x	...25170/4		● Tornos DECO	
25	6	20	170	24,6	4x	...25170/6		● Tornos DECO	
25	4	20	171	24,6	-	...25171/4			● Tornos DECO
25	6	20	171	24,6	-	...25171/6			● Tornos DECO
1"	4	20	70	25	2x	...26070/4		● Citizen	
1"	6	20	70	25	2x	...26070/6		● Citizen	
1"	4	20	145	25	2x	...26145/4		● Citizen	
1"	6	20	145	25	2x	...26145/6		● Citizen	
28	4	20	100	27,6	2x	...28100/4		● Traub	
28	6	23	100	27,6	2x	...28100/6		● Traub	
32	4	20	80	31,6	1x	...32080/4	●		
32	6	23	80	31,6	1x	...32080/6	●		
32	4	25	135	22	3x	...32135/4		● Goodway, Star	
32	6	25	135	22	3x	...32135/6		● Goodway, Star	

A partir del diámetro de mango S 16 mm con rosca G1/8" para acoplar al refrigerante.

A partir du diamètre de la tige S 16 mm avec filetage G1/8" pour raccord à réfrigérant.

From shank diameter S 16 mm with thread G1/8" for coolant connection.

Piezas de recambio ver página 28

Pièces de rechange voir page 28

Space parts refer to page 28

Nº de pedido: añadir el número de identificación a la referencia, por ejemplo: MTHA-07049/4

● Disponible de stock
○ Plazo de entrega bajo demanda

Nº de commande: joindre le numéro d'identification à la référence, par exemple: MTHA-07049/4

● Livrable du stock
○ Délai de livraison sur demande

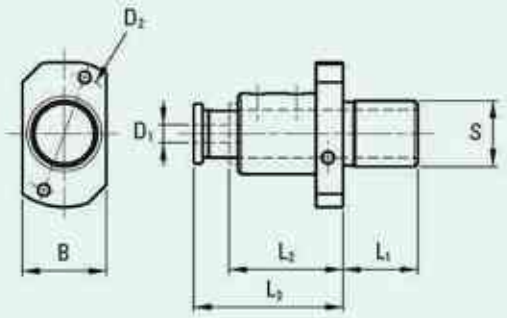
Order number: Add ident. No. to type of tool, e.g.: MTHA-07049/4

● Available ex stock
○ Delivery time on request

Porta-herramientas para mecanizado en contra operación sobre tornos automáticos CNC

Porte-outils pour usinage en contre-opération sur tours automatiques CNC

Holders for back operation on CNC sliding head automatic lathes



MTHB

Referencia		Référence		Type of holder				MTHB...	
∅S	∅D1	∅D2	L1	L2	L3	B	Ident. N°		Máquina/Machine/Machine
16	4	31	21	26	42	24	...16065/4	●	Star
16	4	32	10	38	54	17	...16074/4	●	Star SR10J
20	4	35	26,5	26	49	37,5	...20061/4	●	Tornos Swiss GT13 und GT26
20	6	35	26,5	26	49	37,5	...20061/6	●	Tornos Swiss GT13 und GT26
22	4	40	25	38	58	28	...22078/4	●	Star
22	6	40	25	38	58	28	...22078/6	●	Star
22	4	39	25	40	62	32,5	...22079/4	●	Star SR20 IV, Star SW20, Star SB12 R und SB20 R
22	6	39	25	40	62	32,5	...22079/6	●	Star SR20 IV, Star SW20, Star SB12 R und SB20 R
22	4	38	30	34	56	38	...22080/4	●	Star SR32 alt
22	6	38	30	34	56	38	...22080/6	●	Star SR32 alt
25	4	38,1	25	38	83	28	...25062/4	●	Citizen L20
25	6	38,1	25	38	83	28	...25062/6	●	Citizen L20
28	4	38,1	30	35	59	35	...28057/4	●	Tornos CT20
28	6	38,1	39	23	47	35	...28057/6	●	Tornos CT20
32	4	40	25	39	59	39	...32081/4	○	Hanwha
32	6	40	25	39	59	39	...32081/6	●	Hanwha
32	4	52	30	46	64	41	...32093/4	●	Goodway
32	6	52	30	46	64	41	...32093/6	●	Goodway
33	4	40	37	39	59	36	...33091/4	●	Hanwha
33	6	40	37	39	59	36	...33091/6	●	Hanwha
34	4	42	25	39	59	38	...34081/4	○	Star
34	6	42	25	39	59	38	...34081/6	●	Star

Porta-herramientas especiales bajo demanda

Porte-outils spéciaux sur demande

Custom made holders upon request

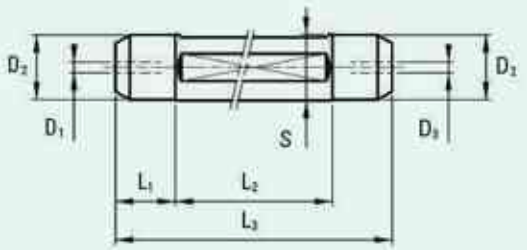
Nº de pedido: añadir el número de identificación a la referencia, por ejemplo: MTHB-16065/4
● Disponible de stock
○ Plazo de entrega bajo demanda

N° de commande: joindre le numéro d'identification à la référence, par exemple: MTHB-16065/4
● Livrable du stock
○ Délai de livraison sur demande

Order number: Add Ident. No. to type of tool, e.g.: MTHB-16065/4
● Available ex stock
○ Delivery time on request

Porta-herramientas doble para MicroTurn | Porte-outils double pour MicroTurn | Double holders for MicroTurn

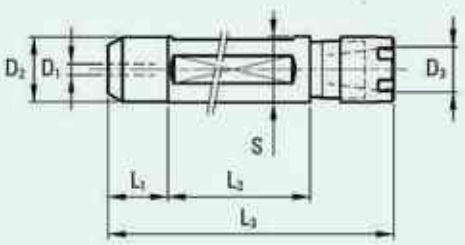
MTHC



Referencia		Référence			Type of holder			MTHC...	
∅S	∅D1	∅D2	∅D3	L1	L2	L3	Ident. N°		Máquina/Machine/Machine
5/8"	4	-	4	-	-	48	...15048/4	●	Citizen R04/R07
5/8"	4	-	4	-	-	55	...15055/4	●	Citizen R04/R07
5/8"	4	-	4	-	-	65	...15065/4	●	Citizen R04/R07
16	4	16	4	-	-	70	...16070/4	●	Tornos Micro
16	4	14	4	10	90	110	...16110/4	●	Star SR16J
20	4	19,6	4	5	80	90	...20090/4	●	Citizen B12E, B16E
22	4	21,6	4	20	32	114	...22114/4	●	Star
22	4	21,6	6	20	74	114	...22114/46	●	Star
22	6	21,6	6	20	74	114	...22114/6	●	Star
22	4	21,6	4	20	95	135	...22135/4	●	Star
22	6	21,6	6	20	95	135	...22135/6	●	Star
22	4	21,6	4	20	105	145	...22145/4	○	Star
22	6	21,6	6	20	105	145	...22145/6	○	Star

Porta-herramientas doble para MicroTurn y pinza ER | Porte-outils double pour MicroTurn et pince ER | Double holders for MicroTurn and collet chuck ER

MTHE



Referencia		Référence			Type of holder			MTHE...	
∅S	∅D1	∅D2	∅D3	L1	L2	L3	Ident. N°		Máquina/Machine/Machine
12	4	-	ER8	-	-	55	...12055/4	●	Citizen R04/R07
5/8"	4	-	ER8	-	-	55	...15055/4	●	Citizen R04/R07
16	4	16	ER11	-	55	75	...16071/4	●	Tornos Micro
16	4	14	ER11	10	85	115	...16110/4	●	Star SR10 J
3/4"	4	18,6	ER11	23	70	114	...19108/4	●	Citizen
3/4"	6	18,6	ER11	23	70	114	...19108/6	●	Citizen
3/4"	4	18,6	ER11	23	100	144	...19138/4	●	Citizen
3/4"	6	18,6	ER11	23	100	144	...19138/6	●	Citizen
20	4	19,6	ER11	20	32	76	...20071/4	●	Citizen
22	4	21,6	ER16	20	78	126	...22114/4	●	Star
22	6	21,6	ER16	20	78	126	...22114/6	●	Star
22	4	21,6	ER16	20	109	157	...22145/4	●	Star
22	6	21,6	ER16	20	109	157	...22145/6	●	Star

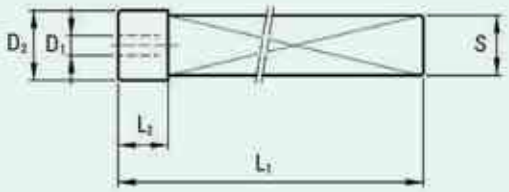
Nº de pedido: añadir el número de identificación a la referencia, por ejemplo: MTHC-15048/4
● Disponible de stock
○ Plazo de entrega bajo demanda

Nº de commande: joindre le numéro d'identification à la référence, par exemple: MTHC-15048/4
● Livrable du stock
○ Délai de livraison sur demande

Order number: Add Ident. No. to type of tool, e.g.: MTHC-15048/4
● Available ex stock
○ Delivery time on request

Porta-herramientas de mango cuadrado Porte-outils à tige carrée Holders with square shank

MTHV



Referencia		Référence		Type of holder		MTHV...
S	∅D1	L1	L2	∅D2	Ident. N°	
12×12	4	85	10	14	...12085/4	●
12×12	6	99	24	16	...12100/6	●
16×16	4	100	3	14	...16100/4	●
16×16	6	100	10	15,8	...16100/6	●

Piezas de recambio para MTH... Pièces de rechange pour MTH... Spare parts for MTH...

Llave/
Clé à fourche/Wrench

Tornillo/
Vis/Screw

Cono de sujeción/Cone
de serrage/Thrust collar

Pinza de sujeción/Pince
de serrage/Collet chuck

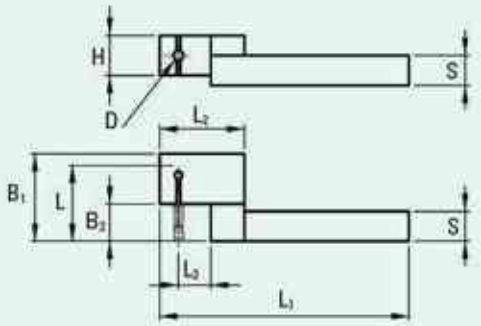
Referencia	Référence	Spare part		MTSC...	MTHS...	MTHD...	MTHZ...
für MTH .../4	pour MTH .../4	for MTH .../4	...00004	●	●	●	●
für MTH .../6	pour MTH .../6	for MTH .../6	...00006	●	●	●	●

Nº de pedido: añadir el número de identificación a la referencia, por ejemplo: MTHV-12085/4
● Disponible de stock
○ Plazo de entrega bajo demanda

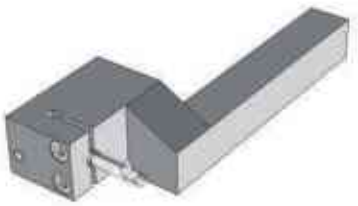
N° de commande: joindre le numéro d'identification à la référence, par exemple: MTHV-12085/4
● Livrable du stock
○ Délai de livraison sur demande

Order number: Add Ident. No. to type of tool, e.g.: MTHV-12085/4
● Available ex stock
○ Delivery time on request

Porta-herramientas acodados, a derecha Porte-outils coudés, à droite Cranked holders, right hand

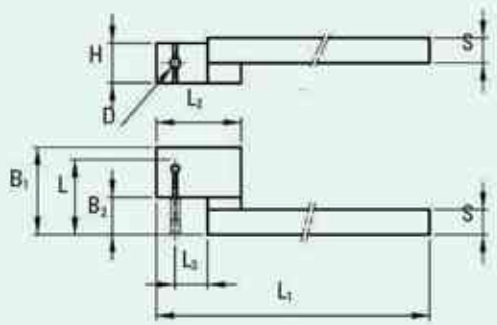


MTAR

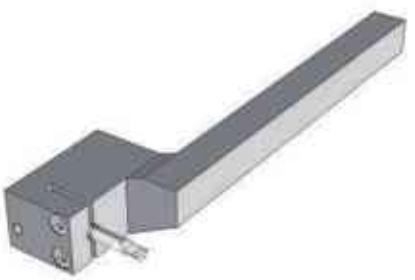


Referencia			Référence				Type of holder			MTAR...
S	∅D	L	L_1	L_2	L_3	B_1	B_2	H	Ident. N°	
7	4	31	100	34	13	35	15	16	...07100/431	△
8	4	26	100	34	13	29	8	16	...08100/426	●
8	4	31	100	34	13	35	15	16	...08100/431	●
10	4	26	100	34	13	29	8	16	...10100/426	●
10	4	31	100	34	13	35	15	16	...10100/431	●
10	4	36	100	34	13	40	20	16	...10100/436	○
10	6	35	100	34	13	38	14	16	...10100/635	●
10	6	43	100	34	13	45	21	16	...10100/643	●
10	6	48	100	34	13	50	26	16	...10100/648	●
12	4	26	100	34	13	29	8	16	...12100/426	●
12	4	31	100	34	13	35	15	16	...12100/431	●
12	4	36	100	34	13	40	20	16	...12100/436	●
12	6	35	100	34	13	38	14	16	...12100/635	●
12	6	43	100	34	13	45	21	16	...12100/643	●
12	6	48	100	34	13	50	26	16	...12100/648	●
12	6	53	100	34	13	55	33	16	...12100/653	●
16	4	31	130	34	13	35	15	16	...16130/431	●
16	4	36	130	34	13	40	20	16	...16130/436	○
16	6	35	130	34	13	38	14	16	...16130/635	○
16	6	43	130	34	13	45	21	16	...16130/643	●
16	6	48	130	34	13	50	26	16	...16130/648	●
16	6	53	130	38	17	55	33	16	...16130/653	●
16	6	61	130	38	17	64	42	16	...16130/661	○
16	6	71	130	38	17	74	52	16	...16130/671	○

Porta-herramientas acodados, a izquierda Porte-outils coudés, à gauche Cranked holders, left hand



MTAL



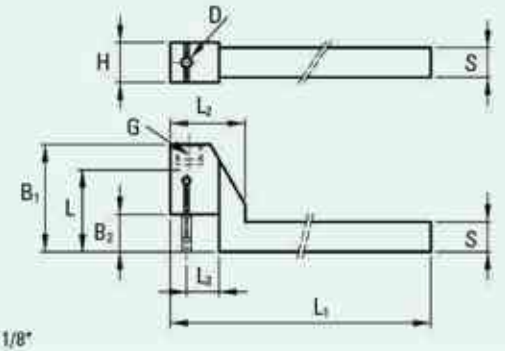
Referencia			Référence				Type of holder			MTAL...
S	∅D	L	L_1	L_2	L_3	B_1	B_2	H	Ident. N°	
7	4	31	120	34	13	35	15	16	...07120/4	△
8	4	31	130	34	13	35	15	16	...08130/4	△
10	6	43	130	34	13	45	21	16	...10130/6	△
12	4	31	130	34	13	35	15	16	...12130/4	○
12	6	43	130	34	13	45	21	16	...12130/6	○
16	4	31	150	34	13	35	15	16	...16150/4	△
16	6	43	150	34	13	45	21	16	...16150/6	△

△ Hasta agotar el stock △ Jusqu'à épuisement du stock △ Until use up of stock

Porta-herramientas acodados neutros, con refrigeración

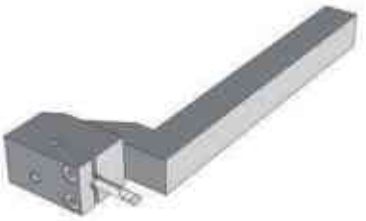
Porte-outils coudés neutres, avec arrosage

Cranked holders, neutral, with through coolant capability



G = G 1/8"

MTAN

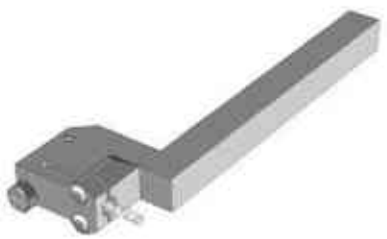


Referencia			Référence			Type of holder				MTAN...
S	∅D	L	L_1	L_2	L_3	B_1	B_2	H	Ident. N°	
12	4	31	130	30	13	43	15	16	...12131/431	●
12	4	36	130	30	13	48	20	16	...12131/436	●
12	6	43	130	30	13	53	21	16	...12131/643	●
12	6	48	130	30	13	58	26	16	...12131/648	○
12	6	53	130	30	13	63	33	16	...12131/653	○
16	4	31	130	34	13	43	15	16	...16131/431	●
16	4	36	130	34	13	48	20	16	...16131/436	●
16	6	43	130	34	13	53	21	16	...16131/643	●
16	6	48	130	34	13	58	26	16	...16131/648	●
16	6	53	130	34	17	63	33	16	...16131/653	○

Porta-herramientas especiales bajo demanda

Porte-outils spéciaux sur demande

Custom made holders upon request



Galga de posicionamiento MTAP para porta-herramientas MT... /426 ver 34

Jauge de positionnement MTAP pour porte-outils MT... /426 voir page 34

Positionning tool MTAP for tool-holders MT... /426 see page 34

Nº de pedido: añadir el número de identificación a la referencia, por ejemplo: MTAN-12131/431

● Disponible de stock
○ Plazo de entrega bajo demanda

N° de commande: joindre le numéro d'identification à la référence, par exemple: MTAN-12131/431

● Livrable du stock
○ Délai de livraison sur demande

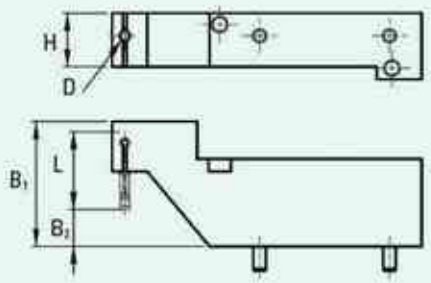
Order number: Add ident. No. to type of tool, e.g.: MTAN-12131/431

● Available ex stock
○ Delivery time on request

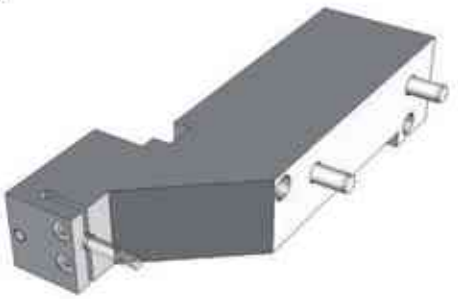
Porta-herramientas monobloc para DECO 7/10 y EvoDECO 10 de Tornos

Porte-outils monobloc pour DECO 7/10 et EvoDECO 10 de Tornos

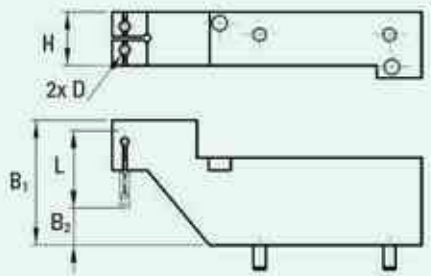
Monobloc tool holders for for DECO 7/10 and EvoDECO 10 from Tornos



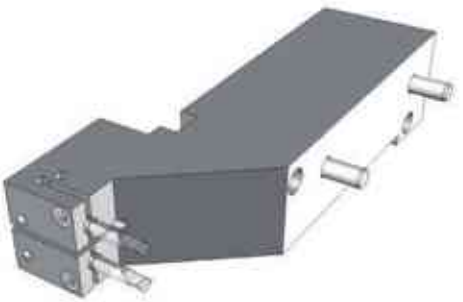
MTAD



Referencia		Référence		Type of holder		MTAD...
∅D	L	B_1	B_2	H	Ident. N°	
4	26	45	15	21,5	...01000/426	•
4	31	50	15	21,5	...01000/431	•
6	35	52	15	21,5	...01000/635	•
6	43	60	15	21,5	...01000/643	•



MTAD

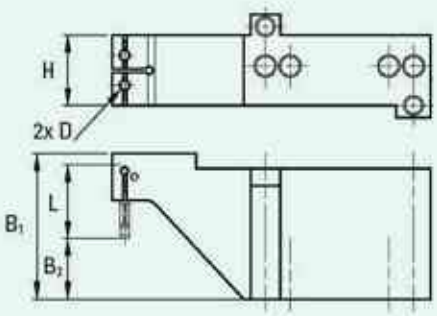


Referencia		Référence		Type of holder		MTAD...
∅D	L	B_1	B_2	H	Ident. N°	
4	26	45	15	21,5	...01002/426	•
4	31	50	15	21,5	...01002/431	•

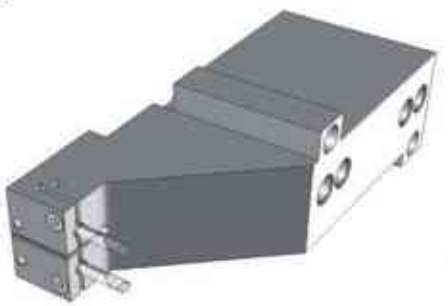
Porta-herramientas monobloc para DECO 13 y EvoDECO 16 de Tornos

Porte-outils monobloc pour DECO 13 et EvoDECO 16 de Tornos

Monobloc tool holders for for DECO 13 and EvoDECO 16 from Tornos



MTAD

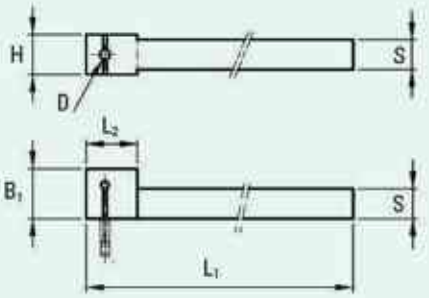


Referencia		Référence		Type of holder		MTAD...
∅D	L	B_1	B_2	H	Ident. N°	
4	26	53	25	28,5	...01300/426	•
4	31	59	25	28,5	...01300/431	•
6	35	63	25	28,5	...01300/635	•
6	43	71	25	28,5	...01300/643	•

Porta-herramientas neutros, sin refrigeración, para mecanizar en contra operación sobre DECO

Porte-outils neutres, sans arrosage, pour usinage en contre-opération sur DECO

Neutral holders, without coolant capability, for back operation on DECO



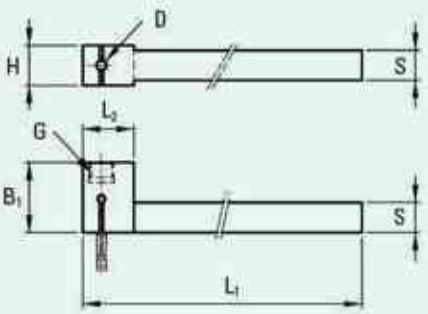
MTAT

Referencia			Référence		Type of holder		MTAT...
S	∅D	L_1	L_2	B_1	H	Ident. N°	
8	4	100	20,5	20	16	...08100/4	●
10	4	100	20,5	20	16	...10100/4	●
12	4	130	20,5	20	16	...12130/4	●
12	6	130	20,5	24	16	...12130/6	●
16	4	130	20,5	20	16	...16130/4	●
16	6	130	20,5	24	16	...16130/6	●

Porta-herramientas neutros, con refrigeración, para mecanizar en contra operación sobre DECO

Porte-outils neutres, avec arrosage, pour usinage en contre-opération sur DECO

Neutral holders, with coolant capability, for back operation on DECO



G = G 1/8"

MTAT

Referencia			Référence		Type of holder		MTAT...
S	∅D	L_1	L_2	B_1	H	Ident. N°	
12	4	130	20,5	28	16	...12131/4	●
12	6	130	20,5	32	16	...12131/6	●
16	4	130	20,5	28	16	...16131/4	●
16	6	130	20,5	32	16	...16131/6	●

Nº de pedido: añadir el número de identificación a la referencia, por ejemplo: MTAT-08100/4

● Disponible de stock
○ Plazo de entrega bajo demanda

Nº de commande: joindre le numéro d'identification à la référance, par exemple: MTAT-08100/4

● Livrable du stock
○ Délai de livraison sur demande

Order number: Add ident. No. to type of tool, e.g.: MTAT-08100/4

● Available ex stock
○ Delivery time on request

Adaptador para refrigeración | Adaptateur pour arrosage | Adapter for coolant connection

MTAA

Utilización / Utilisation / Utilization	Ident. N°	MTAA_
para / pour / for MTAR... / MTAL... / MTAD-01000/...	...00000	●
para / pour / for MTAD-01002/...	...01002	●
para / pour / for MTAD-01300/...	...01300	●

Galga de posicionamiento | Jauge de positionnement | Positioning tool

MTAP

Utilización / Utilisation / Utilization	MTAP-00426
para / pour / for MTA... /426	●

Nº de pedido: añadir el número de identificación a la referencia, por ejemplo: MTAA-00000

● Disponible de stock
○ Plazo de entrega bajo demanda

N° de commande: joindre le numéro d'identification à la référence, par exemple: MTAA-00000

● Livrable du stock
○ Délai de livraison sur demande

Order number: Add Ident. No. to type of tool, e.g.: MTAA-00000

● Available ex stock
○ Delivery time on request

IFANGER

Randrieren

Moletage

Knurling

Randrieren

Vorteile der Rändelwerkzeuge

- Grosses Angebot von Haltern speziell für die Décolletage.
- Platz sparende Bauweise, dadurch Einsatz in allen Langdrehmaschinen möglich.
- Lange Standzeiten der Rändelrollen dank fein gefrästen, spitzen Profilen.
- Feine Abstufung der Standardteilungen von 0,3 bis 2,0 mm.
- Gleiche Rändelrollen zum Fräsen von Längs- und Kreuzrändeln.
- Einfacher Rollenwechsel im in der Maschine eingebauten Halter.
- Lange Lebensdauer der Halter dank einsatzgehärteter Oberflächen.

Moletage

Les avantages des outils de moletage

- Grande offre de porte-outils spéciaux pour le décolletage.
- Possibilité d'utilisation sur tous les tours automatiques à poupée mobile, grâce à la construction favorisant l'espace d'outil.
- Longue durée de vie des molettes, grâce au fraisage fin du profil pointu.
- Echelonnement fin des pas standards de 0,3 jusqu'à 2,0 mm.
- Molettes identiques pour fraisage longitudinal et croisé.
- Simplicité de changement de molettes sur l'outil monté sur la machine.
- Longue durée de vie de l'outil grâce aux surfaces cémentés et trempés.

Knurling

The advantages of knurling tools

- Large range of holders especially for forming.
- Space-saving construction and therefore suitable for all type of sliding headstock lathes.
- Long running life of knurling rolls due to sharply pointed and finely milled profiles.
- Fine graduation of standard pitches from 0.3 to 2.0 mm.
- Same knurling rolls for cutting longitudinal and cross knurls.
- Easy change of rolls in the holder which is fixed in the machine.
- Long lifespan of holders thanks to case-hardened surfaces.

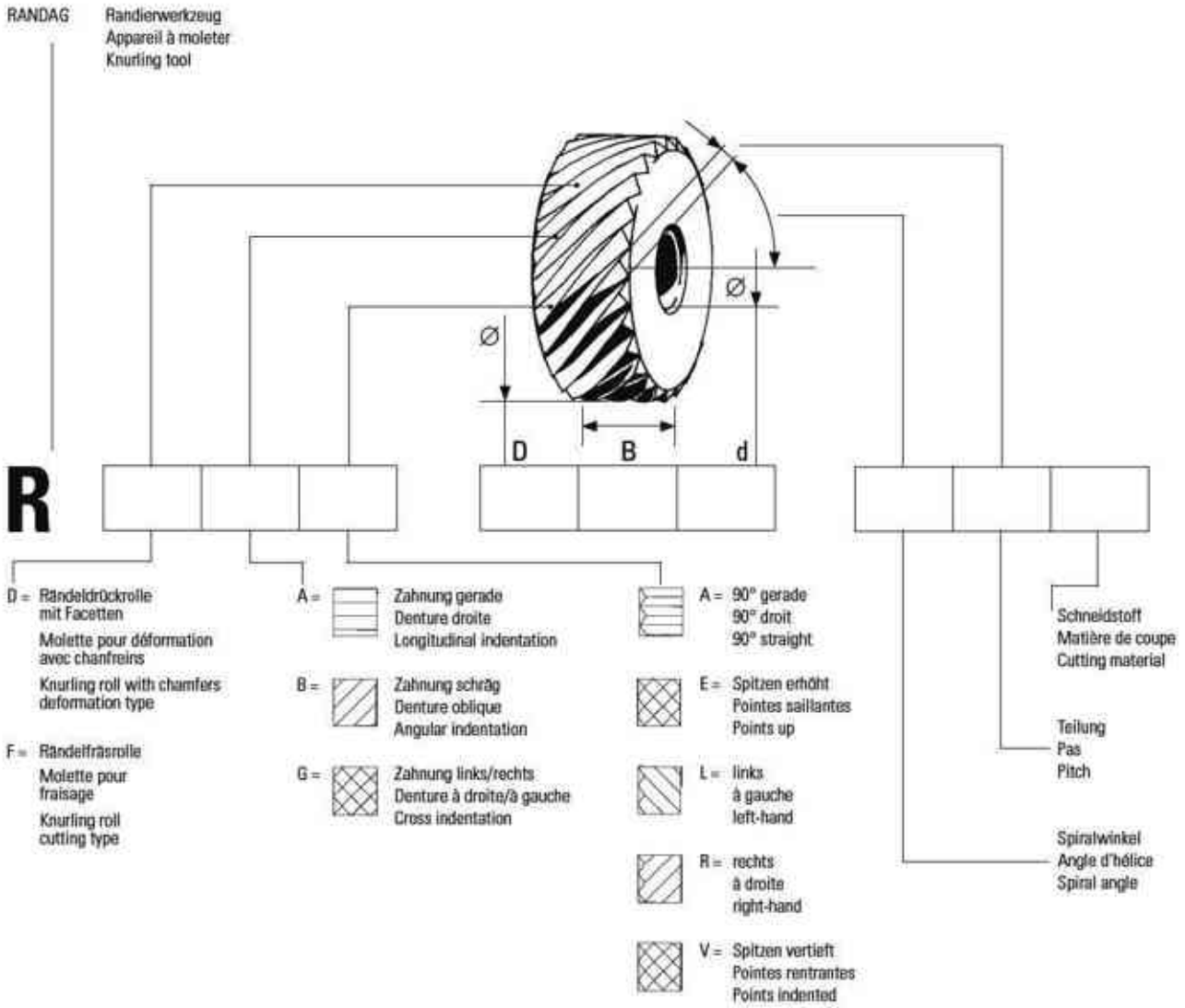
Leistungsfähig und innovativ
Durch den Einsatz modernster Technologie bietet die Ifanger AG innovative, benutzerfreundliche und zuverlässige Zerspanungswerkzeuge an. Sie garantieren nicht nur die gewünschte Anwendung, sie erfüllen auch technische, funktionale und ästhetische Aspekte.

Performant et innovant
Par la mise en jeu de la technologie la plus moderne, Ifanger SA vous propose des outils d'enlèvement de copeaux innovants, faciles à utiliser et totalement fiables qui ne se contentent pas de garantir l'application souhaitée – mais qui remplissent aussi les aspects techniques, fonctionnels et esthétiques.

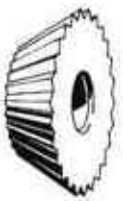
Efficient and innovative
By using state-of-the-art technology, Ifanger AG can offer innovative, user-friendly and reliable cutting tools. They do not only guarantee to do the job, they are technically, functionally and aesthetically top of the range.

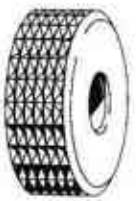
Bezeichnungserklärungen | Explications des désignations | Identification

1. Rändelrollen | Molettes | Knurling rolls



Spezialrändelrollen | Molettes spéciales | Special knurling rolls



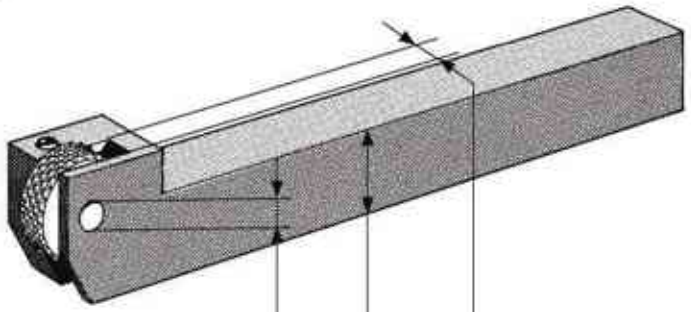


Sonderrollen nach anderen Normen und nach Kundenzeichnungen teilweise ab Lager oder kurzfristig erhältlich.

Molettes spéciales selon normes différentes ou d'après dessin du client disponibles en partie du stock ou à brève échéance.

Special knurling rolls according to different standards or to customer's drawing available ex stock or at short notice.

RANDAG Randierwerkzeug
Appareil à moleter
Knurling tool



R

Rändeldrückhalter
Porte-molettes pour moletage par déformation
Knurling roll holder for knurling by deformation

- A Einfachhalter
  Porte-molettes simple
  Conventional knurling roll holder
- C für Automaten
  pour tours automatiques
  for screw machines
- T für TORNOS-Automaten
  pour tours automatiques TORNOS
  for TORNOS screw machines
- V mit verstellbaren Rollen
  avec molettes réglables
  with adjustable rolls

Rändelfräshalter
Porte-molettes pour moletage par fraisage
Knurling roll holder for knurling by cutting

- K für Kreuzrändel
  pour moletage croisé
  for cross knurl
- R für Revolver-Drehmaschinen
  pour tours revolver
  for turret lathes
- Z für Längsrändel
  pour moletage longitudinal
  for longitudinal knurl

- L für linkslaufende Automaten
  (Spitzenhöhe auf Werkzeugauflage)
  pour automates à marche à gauche
  (hauteur de pointe sur appui du porte-outil)
  for screw machines with left-hand spindle rotation
  (height of centre at bottom of shank)
- R für rechtslaufende Maschinen
  (Spitzenhöhe auf Schaftoberkante)
  pour machines à marche à droite
  (hauteur de pointe sur le bord supérieur de la tige)
  for machines with right-hand spindle rotation
  (height of centre at top of shank)
- N neutral
  neutre
  neutral

Anzahl Rollen
Nombre de molettes
Number of knurling rolls

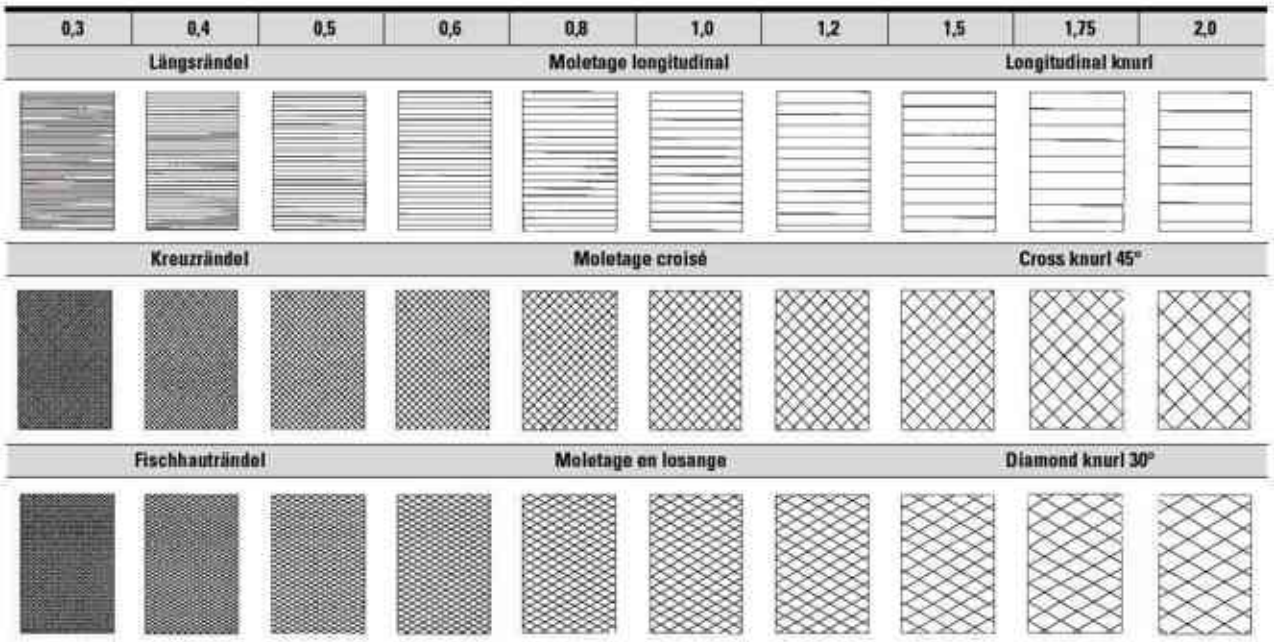
- D 2 Rollen / 2 molettes / 2 rolls
- S 1 Rolle / 1 molette / 1 roll
- T 3 Rollen / 3 molettes / 3 rolls

Achsdurchmesser
Diamètre de l'axe
Diameter of pin

Rollenbreite
Largeur de molette
Width of knurling roll

Schafthöhe
Hauteur de la tige
Thickness of shank

Rändelteilung in mm und Rändelarten | Pas du moletage en mm et types de moletage | Pitches of knurls in mm and types of knurls



Rändeldrücken | Moletage par déformation | Knurling by deformation

Materialverdrängung (Richtwerte)		Déformation du matériel (valeurs indicatives)										Growth of diam. of workpiece (approx. value)							
Teilung Pas Pitch		0,3		0,4		0,5		0,6		0,8		1,0		1,2		1,5		2,0	
*Zahnung *Denture *Indentation		A/B	G	A/B	G	A/B	G	A/B	G	A/B	G	A/B	G	A/B	G	A/B	G	A/B	G
Material Matériel Material	⌀	Vergrösserung + mm						Agrandissement + mm				Growth + mm							
Automatenstähle Aciers de décolletage Free cutting steel	10	0,09	0,05	0,14	0,10	0,18	0,12	0,20	0,15	0,22	0,16	–	–	–	–	–	–	–	–
	20	0,11	0,06	0,15	0,10	0,21	0,12	0,27	0,19	0,34	0,22	0,42	0,28	0,46	0,33	0,53	0,42	0,61	0,50
Rostfreie Stähle Aciers inoxydables Stainless steel	10	0,10	0,06	0,11	0,08	0,14	0,10	0,17	0,12	0,20	0,13	–	–	–	–	–	–	–	–
	20	0,14	0,06	0,18	0,10	0,22	0,14	0,26	0,18	0,35	0,23	0,48	0,28	0,54	0,34	0,60	0,44	–	–
Messing Laiton Brass	5	0,10	0,06	0,14	0,08	0,18	0,10	0,22	0,15	0,26	0,16	–	–	–	–	–	–	–	–
	10	0,10	0,07	0,15	0,10	0,20	0,15	0,24	0,18	0,30	0,22	0,35	0,28	0,41	0,32	–	–	–	–
Aluminium Aluminium Aluminium	5	0,10	0,06	0,12	0,08	0,18	0,11	0,22	0,15	0,26	0,21	–	–	–	–	–	–	–	–
	10	0,10	0,06	0,14	0,09	0,19	0,18	0,22	0,24	0,38	0,30	0,42	0,33	0,48	0,38	0,57	0,45	0,66	0,51

* Siehe Seite 6
* Voir page 6
* See page 6

Schnitt-Richtwerte / Valeurs approx. de coupe / Approx. cutting values									
Werkstoff Matière à usiner Material to be machined	Rollen-⌀ ⌀ de molette ⌀ of knurling roll	Werkstück-⌀ 2 – 12 ⌀ de pièce à usiner ⌀ of workpiece		Werkstück-⌀ 12 – 40 ⌀ de pièce à usiner ⌀ of workpiece		Werkstück-⌀ 40 – 250 ⌀ de pièce à usiner ⌀ of workpiece		Werkstück-⌀ 250+ ⌀ de pièce à usiner ⌀ of workpiece	
		V m/min	s mm/U / t./ rev.	V m/min	s mm/U / t./ rev.	V m/min	s mm/U / t./ rev.	V m/min	s mm/ U / t./ rev.
Stähle bis 600 N/mm² Aciers jusqu'à 600 N/mm² Steel up to 600 N/mm²	8,9 – 11 14,5 – 15 20 – 21,5 25	30 40 60	0,05 – 0,08 0,07 – 0,09 0,07 – 0,14	40 60 100	0,07 – 0,09 0,07 – 0,15 0,10 – 0,20	55 100	0,07 – 0,15 0,10 – 0,20	50	0,10 – 0,20
Stähle bis 900 N/mm² Aciers jusqu'à 900 N/mm² Steel up to 900 N/mm²	8,9 – 11 14,5 – 15 20 – 21,5 25	25 35 45	0,04 – 0,07 0,06 – 0,08 0,06 – 0,12	30 45 60	0,06 – 0,08 0,06 – 0,12 0,08 – 0,16	40 55	0,06 – 0,12 0,08 – 0,16	50	0,08 – 0,16
Nichtrostende Stähle Aciers inoxydables Stainless steel	8,9 – 11 14,5 – 15 20 – 21,5 25	20 30 40	0,04 – 0,06 0,06 – 0,08 0,06 – 0,12	28 35 45	0,06 – 0,08 0,06 – 0,12 0,08 – 0,17	32 42	0,06 – 0,12 0,08 – 0,17	40	0,08 – 0,17
Grauguss Fonte grise Grey cast iron	8,9 – 11 14,5 – 15 20 – 21,5 25	22 30 40	0,04 – 0,06 0,06 – 0,08 0,06 – 0,12	28 35 45	0,06 – 0,08 0,06 – 0,12 0,08 – 0,17	32 42	0,06 – 0,12 0,08 – 0,17	40	0,08 – 0,17
Stahlguss Aciers moulés Cast steel	8,9 – 11 14,5 – 15 20 – 21,5 25	25 35 45	0,04 – 0,07 0,05 – 0,08 0,06 – 0,12	30 45 90	0,05 – 0,08 0,06 – 0,12 0,08 – 0,15	40 65	0,06 – 0,12 0,08 – 0,15	60	0,08 – 0,15
Messing 58 Laiton 58 Brass 58	8,9 – 11 14,5 – 15 20 – 21,5 25	60 70 100	0,06 – 0,10 0,08 – 0,12 0,08 – 0,20	60 100 140	0,08 – 0,12 0,08 – 0,20 0,10 – 0,20	90 130	0,08 – 0,20 0,10 – 0,20	115	0,10 – 0,20
Messing 60 Laiton 60 Brass 60	8,9 – 11 14,5 – 15 20 – 21,5 25	50 60 90	0,05 – 0,08 0,06 – 0,10 0,07 – 0,15	60 90 125	0,06 – 0,10 0,07 – 0,15 0,08 – 0,20	80 120	0,07 – 0,15 0,08 – 0,20	105	0,08 – 0,20
Aluminium, Kupfer Aluminium, cuivre Aluminium, copper	8,9 – 11 14,5 – 15 20 – 21,5 25	70 80 120	0,06 – 0,13 0,08 – 0,18 0,10 – 0,25	70 110 150	0,08 – 0,18 0,10 – 0,25 0,10 – 0,35	100 135	0,10 – 0,25 0,10 – 0,35	125	0,10 – 0,35
Bronze Bronze Bronze	8,9 – 11 14,5 – 15 20 – 21,5 25	35 45 60	0,05 – 0,08 0,07 – 0,09 0,07 – 0,14	40 60 80	0,07 – 0,09 0,07 – 0,14 0,10 – 0,18	55 86	0,07 – 0,14 0,10 – 0,18	80	0,10 – 0,18

V= Schnittgeschwindigkeit / Vitesse de coupe / Cutting speed s = Vorschub / Avance / Feed

Allgemeine Hinweise zum Rändeldrücken

Einstellen des Halters
- Beim Einstechrändeln Halter 90° zum Werkstück einspannen.
- Beim Längsrändeln kann der Halter bis zu 88° zum Werkstück eingespannt werden, um dank dem Freiwinkel von bis zu 2° das Aufstauchen des Werkstoffes zu vermindern.
- Für korrektes Rändelbild auf Werkstück Rändelhalter genau auf Spitzenhöhe einspannen.

Erzeugen des Rändels
- Kurze Rändel: Einstechen, Profillänge entspricht Rollenbreite.
- Lange Rändel: Zuerst auf Profiltiefe einstechen, dann mit Längsvorschub auf gewünschte Länge bringen. Dazu unbedingt facettierte Rollen verwenden.
- Zähe und zähharte Werkstoffe: Qualität des Rändels und Standzeit der Rändelrolle können mit spezieller Hartstoffbeschichtung der Rolle erheblich verbessert werden. Kontaktieren Sie unseren Kundendienst.

Vorschubwerte
- Beim Einstechrändeln: zügig mit Vorschub 25–50% der Teilung pro Umdrehung auf Profiltiefe fahren.
- Beim Längsrändeln: Vorschub 0,15–0,3 mm/U.

Schnittgeschwindigkeiten
- Rändeldrücken ist ein reiner Umformvorgang. Geeignete Umfangsgeschwindigkeit des Werkstückes ca. 20 m/Min., für Werkstoffe hoher Festigkeit entsprechend reduzieren.

Auswahl der Rändelrollen
- RAA: gerader Rändel mit gerader Rändelrolle RDAA.
- RBL: Linksrändel mit rechter Rändelrolle RDBR.
- RBR: Rechtsrändel mit linker Rändelrolle RDBL.
- RGE: gekreuzt erhöhter Rändel entweder mit Rändelrolle RDGV oder je einer Rändelrolle RDBL und RDBR.
- RGV: gekreuzt vertiefter Rändel mit Rändelrolle RDGE, kann nur gedrückt werden.
- Gekreuzte Rändelrollen können nur zum Einstechrändeln verwendet werden.

Konische Rändel

Konische Rändel werden mit auf das Werkstück abgestimmten konischen Rändelrollen durch Einstechrändeln gefertigt. Diese Rollen werden nur auf Kundenwunsch hergestellt. Dazu benötigen wir eine Werkstückzeichnung. Wichtige Parameter eines kegeligen Rändels sind: grosser Kegeldurchmesser, Kegelbreite, Kegelwinkel (gesamter Kegel), Teilung am mittleren Kegeldurchmesser.

Stirnrändel

Stirnrändel werden mit konischen Rändelrollen hergestellt (siehe Abschnitt konische Rändel).

Indications générales au sujet du moletage par déformation

Réglage du porte-molettes
- Lors de moletages en plongée, serrer le porte-molettes perpendiculairement par rapport à la pièce à usiner.
- Lors de moletages en avançant, le porte-molettes peut être serré jusqu'à 88° par rapport à la pièce à usiner. De cette manière, le refoulement de matière est réduit grâce au dégagement des 2°.
- Pour obtenir un moletage propre sur la pièce, il est impératif de placer le porte-molettes exactement à la hauteur de pointe.

Production de moletage
- Moletages courts: plonger, la longueur du profil correspond à la largeur de la molette.
- Moletages longs: plonger à la profondeur du profil, ensuite atteindre la longueur voulue avec l'avance longitudinale. Utiliser absolument des molettes avec chanfreins.
- Matériaux tenaces et durs: la qualité du moletage et la longévité de la molette peuvent être nettement améliorées avec un revêtement résistant à l'usure de la molette. Contacter notre service à la clientèle.

Avance
- Lors de moletage en plongée: plonger franchement avec une avance par tour de 25 à 50% du pas jusqu'à la profondeur du profil.
- Lors de moletage en avançant: avance longitudinale 0,15 à 0,3 mm/tour.

Vitesse de coupe
- Le moletage par déformation est un pur procédé de transformation. Une vitesse circonférentielle de la pièce à usiner d'environ 20 m/min est recommandée. Pour des matériaux à haute tenacité réduire la vitesse conformément.

Choix de molettes
- RAA: moletage droit avec molette droite RDAA.
- RBL: moletage à gauche avec molette à droite RDBR.
- RBR: moletage à droite avec molette à gauche RDBL.
- RGE: moletage croisé pointes saillantes ou bien avec molette RDGV ou une de chaque molette RDBL et RDBR.
- RGV: moletage croisé pointes enfoncées avec molette RDGE, peut seulement être produit par déformation.
- Molettes croisées peuvent seulement être utilisées pour moletage en plongée.

Moletages coniques

Les moletages coniques se font par moletage en plongée avec des molettes coniques fabriquées d'après les données de la pièce à usiner. Ces molettes sont seulement produites sur demande du client. Pour ce faire, il nous faut un dessin de la pièce à usiner. Les paramètres importants d'un moletage conique sont les suivants: grand diamètre du cône, largeur du cône, angle du cône (cône complet), pas sur le diamètre du milieu du cône.

Moletage de face

Les moletages de face sont également réalisés avec des molettes coniques (voir paragraphe moletages coniques).

General directions for knurling by deformation

Adjusting the knurling holder
- When knurling by plunging, holder to be set at 90 degrees to the workpiece.
- When plunging for longitudinal knurls, the holder can be set up to 88 degrees to the workpiece. The clearance of up to 2 degrees will reduce jumping of the material.
- To get a clean knurl on the workpiece, set the holder exactly on height of centre.

Producing a knurl
- Short knurls: Plunge, length of profile equal width of roll.
- Long knurls: Plunge down to depth of profile, then use longitudinal feed to reach required length. The use of rolls with a chamfer is compulsory.
- Tough and tenace material: Quality of knurl and tool life of knurling roll are improved considerably by applying a wear-resisting coating on the roll. Contact our servicing department.

Rates of feed
- Plunge knurling: Plunge down without hesitation to depth of profile at a feed rate of 25–50% of the pitch.
- Longitudinal knurling: Feed 0.15–0.3 mm/rev.

Cutting speed
- Knurling by deformation is a pure deformation process. Suitable circumferential speed approx. 20 m/min, for material of high tenacity reduce speed accordingly.

Selection of knurling rolls
- RAA: Longitudinal knurl with roll of longitudinal toothing RDAA.
- RBL: Left-handed knurl with right-handed roll RDBR.
- RBR: Right-handed knurl with left-handed roll RDBL.
- RGE: Cross, points up knurl, either with roll RDGV or with one of each roll RDBL and RDBR.
- RGV: Cross indented knurl with roll RDGE, can only be produced by deformation.
- Cross knurling rolls can only be used for knurling by plunging.

Conical knurls

Conical knurls are being manufactured by plunge knurling with conical knurling rolls manufactured in accordance with the requirements of the workpiece. These rolls are only produced on request of a customer. To do so, we need a drawing of the workpiece. Important parameters of a conical knurl are: large diameter of the cone, width of the cone, angle of the cone (complete cone), pitch on the middle diameter of the cone.

Face knurls

Face knurls are being produced with conical knurling rolls (see section conical knurls).

Auftretende Rändelfräs-probleme und deren Lösung

Drall im Randrierbild
Halter RZSL und RZSR:
Mittels Verstellschraube beweglichen Kopf nach oben oder unten verstellen, bis Drall aufgehoben ist. Arretierschraube festziehen.

Aufgerissene Profilflanken
Halter RZS., RKD. und RRTN:
Bei stumpfen Schneidkanten Rolle wenden oder ersetzen. Abgespante Frässpäne mit Schneidöl oder Bohremulsion wegspülen.

Ungleiche Schnitttiefen bei Kreuzrandrierungen
Halter RKD.:
Bei RKD. Rollenposition kontrollieren. Spitzenhöhe genau einstellen.

Überschneidendes Rändelbild
Halter RKD.:
Schneller auf Rändeltiefe einfahren.

Abgeflachte Rändelspitzen
Halter RRTN:
Werkstückachse und Rändelfräsachse parallel stellen. Rollenposition kontrollieren und Andreh-⌀ genau beachten (siehe Seite 30).

Ausbrechen der Zähne auf Rändelfräsrollen
Rändelfräswerkzeug immer nur in Spindelstockrichtung einsetzen; evtl. Schnitttiefe verringern, evtl. Vorschub reduzieren. Auf Anfrage sind speziell zum Fräsen facettierte Rollen kurzfristig lieferbar.

Angefressene Laufbüchsen oder Rändelrollenbohrungen
Laufbüchsen und Rändelrollenbohrungen mit geeigneter Paste schmieren (Fett mit Teflon-Additiven oder Molykote).

Rändelrollen lösen sich
Halter RRTN:
Drehrichtung von rechts (M3) auf links (M4) wechseln oder Vorschub beim Zurückfahren reduzieren.

Problèmes de moletage par fraisage et leurs solutions

Torsion du moletage
Porte-molettes RZSL et RZSR:
régler en hauteur la tête mobile moyennant la vis de réglage jusqu'à ce que la torsion soit éliminée. Serrer la vis de fixation.

Flancs du profil abimés
Porte-molettes RZS., RKD. et RRTN:
en cas de tranchant de molette usé tourner ou remplacer la molette. Bien évacuer les copeaux au moyen d'huile de coupe ou de lubrifiant.

Profondeur de coupe inégale des moletages croisés
Porte-molettes RKD.:
sur RKD. contrôler position des molettes. Ajuster hauteur de pointe.

Moletages cisaillés
Porte-molettes RKD.:
plonger plus rapidement à la profondeur complète du moletage.

Pointes du moletage aplaties
Porte-molettes RRTN:
placer en position parallèle l'axe de la pièce à usiner et l'axe du porte-molettes. Contrôler position des molettes, observer minutieusement le ⌀ du bout réduit (voir page 30).

Ebréchures des dents des molettes par fraisage
Utiliser l'outil pour moletage par fraisage toujours en direction de la poupée; évent. diminuer la profondeur de coupe, évent. réduire l'avance. Sur demande sont livrables à brève échéance des molettes à facette pour moletage par fraisage.

Douille de guidage ou alésage de la molette grippée
Graisser la douille de guidage et d'alésage de la molette avec pâte appropriée (Graisse au Téflon ou Molykote).

Molettes se dévissent
Porte-molettes RRTN:
changer le sens de rotation à droite (M3) au sens de rotation à gauche (M4) ou réduire l'avance en reculant.

Trouble-shooting guide when knurling by cutting

Twisted knurling pattern
RZSL and RZSR holders:
Reset the height of the adjustable roll holder head. Tighten locking screw.

Rough surfaces
Knurling roll holders RZS., RKD. and RRTN:
The problem is a result of worn leading edge. Turn over or replace knurling roll. Flush away chips with a generous amount of cutting oil or lubricant.

Uneven depth of cross knurls
Knurling roll holder RKD.:
On RKD. check the alignment of knurling rolls. Adjust the centre setting.

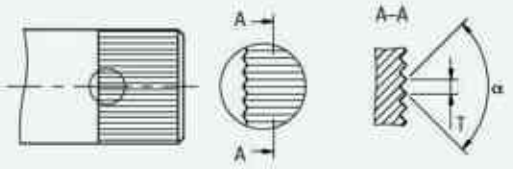
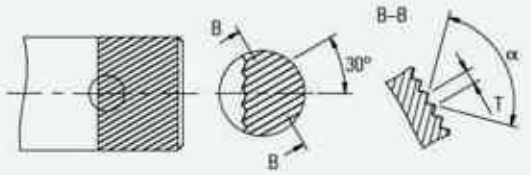
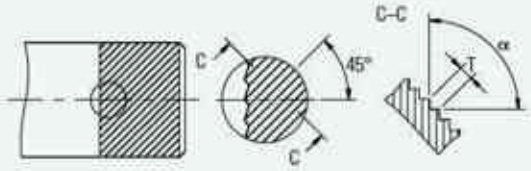
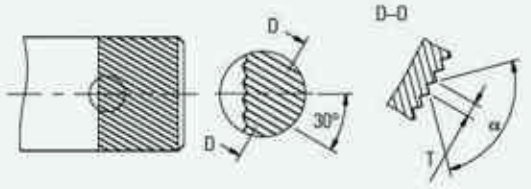
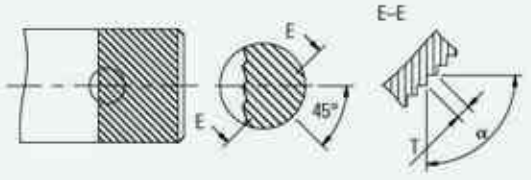
Overcutting of main pattern
Knurling roll holder RKD.:
Increase feed-in and roll engagement.

Flattened top of knurl
Knurling roll holder RRTN:
Re-check and correct the setting according to instructions on page 30.

Broken edges on cutting type rolls
Always operate towards the spindle, reduce depth of cut and/or feed. Knurling rolls with chamfer for knurling by cutting can be supplied at short notice.

Frozen bushings and knurling rolls
Always apply a suitable lubricant (Grease with Teflon additives or graphite based) to bushings and bores.

Knurling rolls untie themselves
Holders RRTN:
Change sense of rotation from right (M3) to left (M4) or reduce the feed during moving back.

	Bezeichnung nach DIN 82 Désignation selon DIN 82 Knurls according to DIN 82	Bezeichnung nach VSM 34060 Désignation selon VSM 34060 Knurls according to VSM 34060
	RAA	Rändel Moletage droit Longitudinal knurl
	RBL	30° Linksrändel nicht nach Norm 30° moletage à gauche non normalisé Left-hand knurl 30° not according to standard
	45° Linksrändel nicht nach Norm 45° moletage à gauche non normalisé Left-hand knurl 45° not according to standard	45° Linksrändel nicht nach Norm 45° moletage à gauche non normalisé Left-hand knurl 45° not according to standard
	RBR	30° Rechtsrändel nicht nach Norm 30° moletage à droite non normalisé Right-hand knurl 30° not according to standard
	45° Rechtsrändel nicht nach Norm 45° moletage à droite non normalisé Right-hand knurl 45° not according to standard	45° Rechtsrändel nicht nach Norm 45° moletage à droite non normalisé Right-hand knurl 45° not according to standard

Hinweise zur Herstellung obiger Rändel:

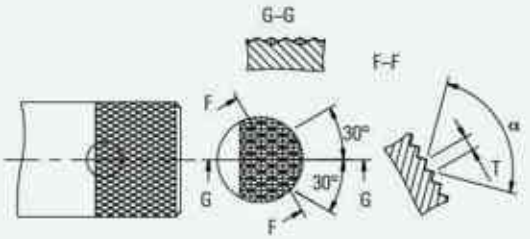
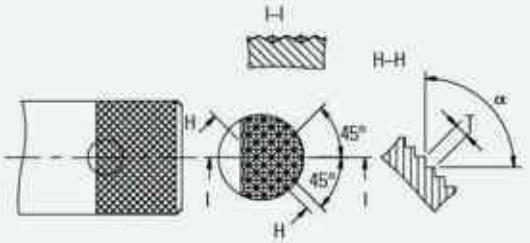
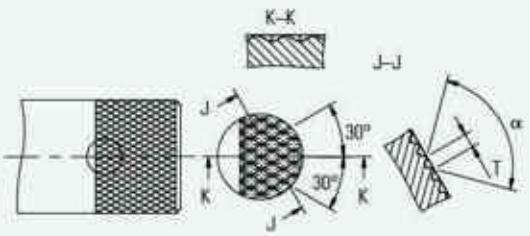
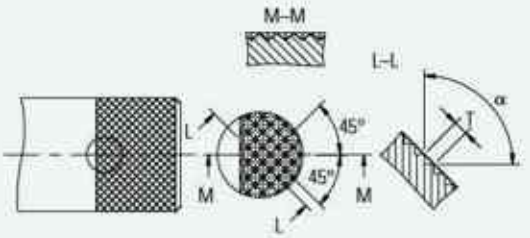
- Diese Rändel werden mit 1 Rolle gedrückt oder gefräst.
- Der Profilwinkel α beträgt in der Regel 90°, kann aber in Ausnahmefällen 105° sein.
- Bezeichnung einer geraden Rändelung mit Teilung 0,8 mm: RAA-0,8 DIN82 oder Rändel VSM 34060-0,8.
- Empfohlene Teilungen siehe Seite 13.

Indications pour la fabrication des moletages ci-dessus:

- Ces moletages sont déformés ou fraisés avec 1 molette.
- L'angle de profil α est en général de 90°, il peut être en cas d'exception de 105°.
- Désignation d'un moletage droit avec pas de 0,8 mm: RAA-0,8 DIN82 ou moletage VSM 34060-0,8.
- Pas recommandés voir page 13.

Directions for the production of above knurls:

- This knurls will be deformed or cutted by 1 roll.
- The profilangle α is in general 90°, but may be exceptionally 105°.
- Designation of a straight knurl with pitch of 0.8 mm: RAA-0,8 DIN82 or knurl VSM 34060-0,8.
- Recommended pitches see page 13.

	Bezeichnung nach DIN 82 Désignation selon DIN 82 Knurls according to DIN 82	Bezeichnung nach VSM 34060 Désignation selon VSM 34060 Knurls according to VSM 34060
	RGE	Kordel Moletage croisé Cross knurl
	45° Kreuzrändel erhöht, nicht nach Norm 45° moletage croisé saillant non normalisé Cross knurl 45° not according to standard	45° Kreuzrändel erhöht, nicht nach Norm 45° moletage croisé saillant non normalisé Cross knurl 45° not according to standard
	RGV	30° Fischhauträndel vertieft, nicht nach Norm 30° moletage en losange creux non normalisé Diamond knurl 30° impressed, not according to standard
	45° Kreuzrändel vertieft, nicht nach Norm 45° moletage croisé creux non normalisé Cross knurl 45° impressed, not according to standard	45° Kreuzrändel vertieft, nicht nach Norm 45° moletage croisé creux non normalisé Cross knurl 45° impressed, not according to standard

Hinweise zur Herstellung obiger Rändel:

- Erhöhte Rändel werden mit 2 Rollen gefräst oder mit 1 oder 2 Rollen gedrückt.
- Vertiefte Rändel können nur mit 1 Rolle gedrückt werden.
- Der Profilwinkel α beträgt in der Regel 90°, kann aber in Ausnahmefällen 105° sein.
- Bezeichnung einer gekreuzten erhöhten Rändelung mit Teilung 0,8 mm:
  RGE-0,8 DIN82 oder Kordel 0,8 VSM 34060.

Indications pour la fabrication des moletages ci-dessus:

- Moletage saillant fraisé avec 2 molettes ou déformé avec 1 ou 2 molettes.
- Moletage creux déformé seulement avec 1 molette.
- L'angle de profil α est en général de 90°, il peut être en cas d'exception de 105°.
- Désignation d'un moletage saillant et croisé avec un pas de 0,8 mm: RGE-0,8 DIN82 ou moletage croisé 0,8 VSM 34060.

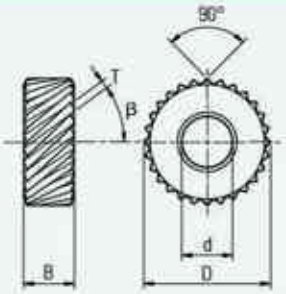
Directions for the production of above knurls:

- Raised knurls will be cutted by 2 rolls or deformed by 1 or 2 rolls.
- Impressed knurls will be deformed by 1 roll only.
- The profilangle α is in general 90°, but may be exceptionally 105°.
- Description of a raised, crossed knurl with a pitch of 0.8 mm:
  RGE-0,8 DIN82 or cross knurl 0,8 VSM 34060.

Empfohlene Teilungen — Pas recommandés — Pitches recommended

∅	T für Breite../ T pour largeur.. / T for width.. 2...>6	6...>16	16...>32	32...	∅	T für Breite../ T pour largeur.. / T for width.. 2...>6	6...>16	16...>32	32...
2 ... > 6	0,4	0,6	0,6	0,6	30... > 60	0,8	1,0	1,0	1,2
6 ... >10	0,6	0,6	0,8	0,8	60... >100	1,0	1,2	1,2	1,5
10 ... >20	0,6	0,8	1,0	1,0	100...	1,2	1,5	1,5	2,0
20 ... >30	0,8	0,8	1,0	1,0					

Rändeldrückrollen RD.. | Molettes pour moletage par déformation RD.. | Rolls for knurling by deformation RD..



			RDAA	RDBL		RDBR	
			HSS	HSS	HSS	HSS	HSS
Spiralwinkel β Typ	Angle d'hélice β Type	Spiral angle β Type	0° AA	30° BL	45° BL	30° BR	45° BR

Rändelrollentyp			Type de molette											Type of roll	RDAA – ...	RDBL – ...	RDBL – ...	RDBR – ...	RDBR – ...
D	B	d	T= Teilungen					Pas			Pitches			Ident. No. Teilung · Material / Pas · Matériel / Dimension · β · Pitch · Material					
			0,3	0,4	0,5	0,6	0,7	0,8	1,0	1,2	1,5	1,75	2,0						
8	3	3	●	●	●	●	●	●	●					..– 08 03 03 –..–..– HSS	●	●	●	●	●
8	4	3	●	●	●	●	●	●	●					..– 08 04 03 –..–..– HSS	●	●	●	●	●
10	2	3	●	●	●	●	●	●						..– 10 02 03 –..–..– HSS	●*				
10	3	3	●	●	●	●	●	●	●					..– 10 03 03 –..–..– HSS	●	○	●	○	●
10	4	3	●	●	●	●	●	●	●	●	○			..– 10 04 03 –..–..– HSS	●	●	●	●	●
10	4	4	●	●	●	●	●	●	●	●	●			..– 10 04 04 –..–..– HSS	●	●	●	●	●
12	4	4	●	●	●	●	○	●	●	○				..– 12 04 04 –..–..– HSS	●		●		●
15	4	4	●	●	●	●	○	●	●	●	●			..– 15 04 04 –..–..– HSS	●	●	●	●	●
15	5	4		●	●	●	○	●	●	●	●			..– 15 05 04 –..–..– HSS	●	●	●	●	●
15	5	5	○	●	●	●	○	●	●	●	●		○	..– 15 05 05 –..–..– HSS	●	○	●	○	●
15	6	4		○	●	●		●	●	●	●			..– 15 06 04 –..–..– HSS	●	○	●	○	●
15	6	5		○	●	●		●	●					..– 15 06 05 –..–..– HSS	●	○	●	○	●
20	6	6		○	●	●		●	●	●	●		●	..– 20 06 06 –..–..– HSS	●	○	●	○	●
20	8	6		○	●	●	○	●	●	●	●	●	●	..– 20 08 06 –..–..– HSS	●	●	●	●	●
20	10	6			●	●		●	●	●	●		●	..– 20 10 06 –..–..– HSS	●		●		●

*scharfkantig

*à angles vifs

*square angled

Lieferbarkeit:
● Standard ab Lager
○ Semistandard, 3 – 4 Wochen

Disponibilité:
● standard, livrable du stock
○ semi-standard, 3 à 4 semaines

Availability:
● standard ex stock
○ semi-standard, 3 – 4 weeks

Andere Abmessungen und Spiralwinkel β sowie TiN-beschichtete Rändeldrückrollen kurzfristig, teilweise sogar ab Lager erhältlich.

Autres dimensions et angles d'hélice β ainsi que molettes pour moletage par déformation revêtues de TiN livrables à brève échéance et, en partie, même du stock.

Deformation type knurling rolls of other diameters or spiral angles β or TiN-coated available at short notice, or ex stock.

Rändeldrückhalter siehe Seiten 19 – 25.

Porte-molettes pour moletage par déformation voir pages 19-25.

Knurling roll holders for knurling by deformation on pages 19 – 25.

Allgemeine Hinweise zum Rändeldrücken siehe Seite 10.

Indications générales au sujet du moletage par déformation en page 10.

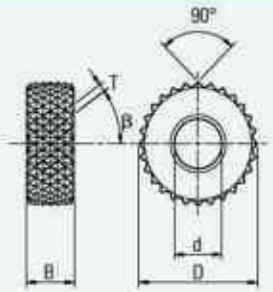
General directions for knurling by deformation on page 10.

Bestell-Nr.: entsprechenden Rändelrollentyp und Ident.-Nr. (Dimension, Spiralwinkel β, Teilung, Material) in dieser Reihenfolge zusammenfügen, z.B. RDBL-08 03 03-45-0,5-HSS

N° de commande: joindre dans cet ordre au type de molettes le numéro d'identification à la référence (dimension, angle d'hélice β, pas, matériel), par exemple: RDBL-08 03 03-45-0,5-HSS

Order number: Add ident. No. to type of roll (sequences of codes are type of roll, dimension, angle β, pitch, material), e.g.: RDBL-08 03 03-45-0,5-HSS

Rändeldrückrollen RD.. / Molettes pour moletage par déformation RD.. / Rolls for knurling by deformation RD..



			RDGE		RDGV	
			HSS	HSS	HSS	HSS
Spiralwinkel β Typ	Angle d'hélice β Type	Spiral angle β Type	30° GE	45° GE	30° GV	45° GV

Rändelrollentyp			Type de molette												Type of roll	RDGE – ...	RDGE – ...	RDGV – ...	RDGV – ...
D	B	d	T= Teilungen					Pas		Pitches					Ident. No. Teilung - Material / Pas - Matériel / Dimension - β - Pitch - Material				
			0,3	0,4	0,5	0,6	0,7	0,8	1,0	1,2	1,5	1,75	2,0						
8	3	3	●	●	●	●	●	●	●						_– 08 03 03 –_–_...– HSS	●	●	○	○
8	4	3	●	●	●	●	●	●	●						_– 08 04 03 –_–_...– HSS	●	●	●	●
10	3	3	●	●	●	●	●	●	●						_– 10 03 03 –_–_...– HSS	○	●		●
10	4	3	●	●	●	●	●	●	●	●	○				_– 10 04 03 –_–_...– HSS	●	●	●	●
10	4	4	●	●	●	●	●	●	●	●	●				_– 10 04 04 –_–_...– HSS	●	●	●	●
12	4	4	●	●	●	●		●	●						_– 12 04 04 –_–_...– HSS		●		●
15	4	4		●	●	●	○	●	●	●	●				_– 15 04 04 –_–_...– HSS	●	●	●	●
15	5	4		●	●	●	○	●	●	●	●				_– 15 05 04 –_–_...– HSS	●	●	●	●
15	5	5		●	●	●		●	●	●	●				_– 15 05 05 –_–_...– HSS	○	●	●	●
15	6	4		○	●	●		●	●	●	●				_– 15 06 04 –_–_...– HSS	○	●	○	○
15	6	5			●	●		●	●						_– 15 06 05 –_–_...– HSS		●		
20	6	6		○	●	●		●	●	●	●			●	_– 20 06 06 –_–_...– HSS	○	●		●
20	8	6	○	●	●	●	○	●	●	●	●	●		●	_– 20 08 06 –_–_...– HSS	●	●	●	●
20	10	6			●	●		●	●	●	●				_– 20 10 06 –_–_...– HSS	●		●	●

Lieferbarkeit:
● Standard ab Lager
○ Semistandard, 3 – 4 Wochen
Typ GV nur Teilung ≤ 1.5 lieferbar

Andere Abmessungen und Spiralwinkel β sowie TiN-beschichtete Rändeldrückrollen kurzfristig, teilweise sogar ab Lager erhältlich.

Rändeldrückhalter siehe Seiten 19 – 21.

Allgemeine Hinweise zum Rändeldrücken siehe Seite 10.

Disponibilité:
● standard, livrable du stock
○ semi-standard, 3 à 4 semaines
Type GV seulement pas ≤ 1.5 livrables

Autres dimensions et angles d'hélice β ainsi que molettes pour moletage par déformation revêtues de TiN livrables à brève échéance et, en partie, même du stock.

Porte-molettes pour moletage par déformation voir pages 19-21.

Indications générales au sujet du moletage par déformation en page 10.

Availability:
● standard ex stock
○ semi-standard, 3 – 4 weeks
Type GV only pitches ≤ 1.5 available

Deformation type knurling rolls of other diameters or spiral angles β or TiN-coated available at short notice, or ex stock.

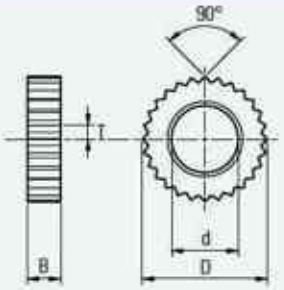
Knurling roll holders for knurling by deformation on pages 19 – 21.

General directions for knurling by deformation on page 10.

Bestell-Nr.: entsprechenden Rändelrollentyp und Ident.-Nr. (Dimension, Spiralwinkel β, Teilung, Material) in dieser Reihenfolge zusammenfügen, z.B. RDBL-08 03 03-45-0,5-HSS

N° de commande: joindre dans cet ordre au type de molettes le numéro d'identification à la référence (dimension, angle d'hélice β, pas, matériel), par exemple: RDBL-08 03 03-45-0,5-HSS

Order number: Add ident. No. to type of roll (sequences of codes are type of roll, dimension, angle β, pitch, material), e.g.: RDBL-08 03 03-45-0,5-HSS



RFAA

Spiralwinkel β Typ	Angle d'hélice β Type	Spiral angle β Type	0° AA

Rändelrollentyp			Type de molette											Type of knurling roll	RFAA – ...	
D	B	d	T= Teilungen					Pas			Pitches			Ident. No. Teilung - Material / Pas - Matériel / Dimension - β - Pitch - Material	HSS	TiN
			0,3	0,4	0,5	0,6	0,7	0,8	1,0	1,2	1,5	1,75	2,0			
8,9	2,5	4	●	●	●	●	●	●	●	●				..– 09 02 04 – 00 – ... – ...	●	○
11	3	6	●	●	●	●	●	●	●	●	●			..– 11 03 06 – 00 – ... – ...	●	○
14,5	3	5			●	●		●	●	●	●			..– 14 03 05 – 00 – ... – ...	●	○
15	4	8			●	●		●	●	●	●			..– 15 04 08 – 00 – ... – ...	●	○
15	4	9		○	●	●	○	●	●	●	●		○	..– 15 04 09 – 00 – ... – ...	●	○
20	5	8			●	●		●	●	●	●	●	●	..– 20 05 08 – 00 – ... – ...	●	○
20	5	11			●	●		●	●	●	●	●	●	..– 20 05 11 – 00 – ... – ...	●	○
21,5	5	8			●	●		●	●	●	●	●	●	..– 21 05 08 – 00 – ... – ...	●	○
25	5	11			●	●		●	●	●	●	●	●	..– 25 05 11 – 00 – ... – ...	●	○
25	6	8			●	●		●	●	●	●	●	●	..– 25 06 08 – 00 – ... – ...	●	○

Lieferbarkeit:
● Standard ab Lager
○ Semistandard, 3 – 4 Wochen

Andere Abmessungen und Spiralwinkel β sowie TiN-beschichtete Rändeldrückrollen kurzfristig, teilweise sogar ab Lager erhältlich.

Rändelfräshalter siehe Seiten 28 – 30.

Allgemeine Hinweise zum Rändelfräsen siehe Seite 11.

Disponibilité:
● standard, livrable du stock
○ semi-standard, 3 à 4 semaines

Autres dimensions et angles d'hélice β ainsi que molettes pour moletage par déformation revêtues de TiN livrables à brève échéance et, en partie, même du stock.

Porte-molettes pour moletage par fraisage voir pages 28-30.

Indications générales au sujet du moletage par fraisage en page 11.

Availability:
● standard ex stock
○ semi-standard, 3 – 4 weeks

Deformation type knurling rolls of other diameters or spiral angles β or TiN-coated available at short notice, or ex stock.

Knurling roll holders for knurling by cutting on pages 28 – 30.

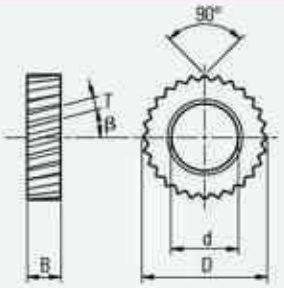
General directions for knurling by cutting on page 11.

Bestell-Nr.: entsprechenden Rändelrollentyp und Ident.-Nr. (Dimension, Spiralwinkel β, Teilung, Material) in dieser Reihenfolge zusammenfügen, z.B. RFAA-09 02 04-00-0,8-HSS

N° de commande: joindre dans cet ordre au type de molettes le numéro d'identification à la référence (dimension, angle d'hélice β, pas, matériel), par exemple: RFAA-09 02 04-00-0,8-HSS

Order number: Add ident. No. to type of roll (sequences of codes are type of roll, dimension, angle β, pitch, material), e.g.: RFAA-09 02 04-00-0,8-HSS

Rändelfräsrollen RF.. / Molettes pour moletage par fraisage RF.. / Rolls for knurling by cutting RF..



RFBL

RFBR

Spiralwinkel β Typ	Angle d'hélice β Type	Spiral angle β Type	15° BL	30° BL	15° BR	30° BR

Rändelrollentyp			Type de molette											Type of knurling roll	RFBL – ...		RFBL – ...		RFBR – ...		RFBR – ...	
D	B	d	T= Teilungen					Pas			Pitches			Ident. No. Teilung - Material Pas - Matériel Dimension - β - Pitch - Material								
			0,3	0,4	0,5	0,6	0,7	0,8	1,0	1,2	1,5	1,75	2,0		HSS ...	TiN	HSS ...	TiN	HSS ...	TiN	HSS ...	TiN
8,9	2,5	4	●	●	●	●	●	●	●	●				..– 09 02 04 – ... – ... – ...	●	○	●	○	●	○	●	○
11	3	6	●	●	●	●	●	●	●	●	●			..– 11 03 06 – ... – ... – ...	●	○	●	○	●	○	●	○
14,5	3	5			●	●		●	●	●	●			..– 14 03 05 – ... – ... – ...	●	○	●	○	●	○	●	○
15	4	8			●	●		●	●	●	●			..– 15 04 08 – ... – ... – ...	●	○	●	○	●	○	●	○
15	4	9		○	●	●	○	●	●	●	●		○	..– 15 04 09 – ... – ... – ...	●	○	●	○	●	○	●	○
20	5	8			●	●		●	●	●	●	●	●	..– 20 05 08 – ... – ... – ...			●	○			●	○
20	5	11			●	●		●	●	●	●	●	●	..– 20 05 11 – ... – ... – ...	●	○	●	○	●	○	●	○
21,5	5	8			●	●		●	●	●	●	●	●	..– 21 05 08 – ... – ... – ...	●	○	●	○	●	○	●	○
25	5	11			●	●		●	●	●	●	●	●	..– 25 05 11 – ... – ... – ...	●	○	●	○	●	○	●	○
25	6	8			●	●		●	●	●	●	●	●	..– 25 06 08 – ... – ... – ...	●	○	●	○	●	○	●	○

Lieferbarkeit:
● Standard ab Lager
○ Semistandard, 3 – 4 Wochen

Andere Abmessungen und Spiralwinkel β sowie TiN-beschichtete Rändeldrückrollen kurzfristig, teilweise sogar ab Lager erhältlich.

Rändelfräshalter siehe Seiten 26 – 30.

Allgemeine Hinweise zum Rändelfräsen siehe Seite 11.

Bestell-Nr.: entsprechenden Rändelrollentyp und Ident.-Nr. (Dimension, Spiralwinkel β, Teilung, Material) in dieser Reihenfolge zusammenfügen, z.B. RFBR-09 02 04-15-0,8-HSS

Disponibilité:
● standard, livrable du stock
○ semi-standard, 3 à 4 semaines

Autres dimensions et angles d'hélice β ainsi que molettes pour moletage par déformation revêtues de TiN livrables à brève échéance et, en partie, même du stock.

Porte-molettes pour moletage par fraisage voir pages 26-30.

Indications générales au sujet du moletage par fraisage en page 11.

N° de commande: joindre dans cet ordre au type de molettes le numéro d'identification à la référence (dimension, angle d'hélice β, pas, matériel), par exemple: RFBR-09 02 04-15-0,8-HSS

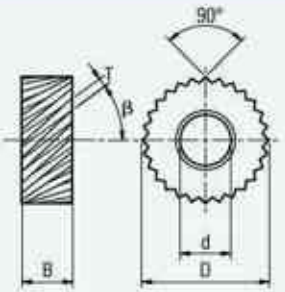
Availability:
● standard ex stock
○ semi-standard, 3 – 4 weeks

Deformation type knurling rolls of other diameters or spiral angles β or TiN-coated available at short notice, or ex stock.

Knurling roll holders for knurling by cutting on pages 26 – 30.

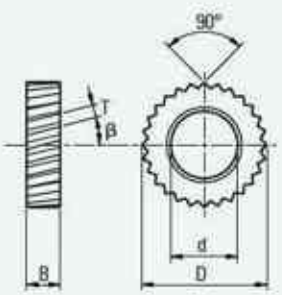
General directions for knurling by cutting on page 11.

Order number: Add ident. No. to type of roll (sequences of codes are type of roll, dimension, angle β, pitch, material), e.g.: RFBR-09 02 04-15-0,8-HSS



			RDAA	RDBL		RDBR	
			HM	HM	HM	HM	HM
Spiralwinkel β Typ	Angle d'hélice β Type	Spiral angle β Type	0° AA	30° BL	45° BL	30° BR	45° BR

Rändelrollentyp / Type de molette / Type of roll															Ident. No. (Teilung - Material / Pas - Matériel / Dimension - β - Pitch - Material)	RDAA – ...	RDBL – ...	RDBL – ...	RDBR – ...	RDBR – ...
D	B	d	T= Teilungen / Pas / Pitches																	
			0,3	0,4	0,5	0,6	0,7	0,8	1,0											
8	3	3	●	●	●	●	●	●							..– 08 03 03 –...–...– HM	○	○	○	○	○
8	4	3	●	●	●	●	●	●							..– 08 04 03 –...–...– HM	○	○	○	○	○
10	3	3	●	●	●	●	●	●							..– 10 03 03 –...–...– HM	○	○	○	○	○
10	4	3	●	●	●	●	●	●							..– 10 04 03 –...–...– HM	○	○	○	○	○
10	4	4	●	●	●	●	●	●	●						..– 10 04 04 –...–...– HM	○	○	○	○	○
12	4	4		●	●	●		●	●						..– 12 04 04 –...–...– HM	○	○	○	○	○
15	4	4		●	●	●		●	●						..– 15 04 04 –...–...– HM	○	○	○	○	○



			RFAA	RFBL		RFBR	
			HM	HM	HM	HM	HM
Spiralwinkel β Typ	Angle d'hélice β Type	Spiral angle β Type	0° AA	15° BL	30° BL	15° BR	30° BR

Rändelrollentyp / Type de molette / Type of roll															Ident. No. (Teilung - Material / Pas - Matériel / Dimension - β - Pitch - Material)	RFAA – ...	RFBL – ...	RFBL – ...	RFBR – ...	RFBR – ...
D	B	d	T= Teilungen / Pas / Pitches																	
			0,3	0,4	0,5	0,6	0,7	0,8	1,0	1,2	1,5	1,75	2,0							
8,9	2,5	4		●	●	●	●	●							..– 09 02 04 –...–...– HM	○	○	○	○	○
11	3	6		●	●	●	●	●	●						..– 11 03 06 –...–...– HM	○	○		○	
15	4	9		●	●	●	●	●	●						..– 15 04 09 –...–...– HM	○	○		○	

Lieferbarkeit:
○ Semistandard, 3 Wochen

Disponibilité:
○ semi-standard, 3 semaines

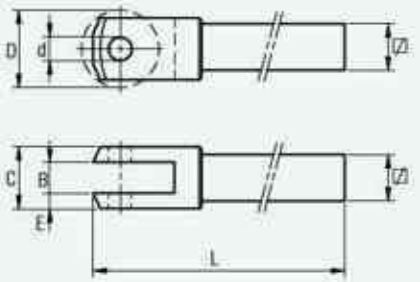
Availability:
○ semi-standard, 3 weeks

Bestell-Nr.: entsprechenden Rändelrollentyp und Ident.-Nr. (Dimension, Spiralwinkel β, Teilung, Material) in dieser Reihenfolge zusammenfügen, z.B. RDBL-08 03 03-45-0,5-HM

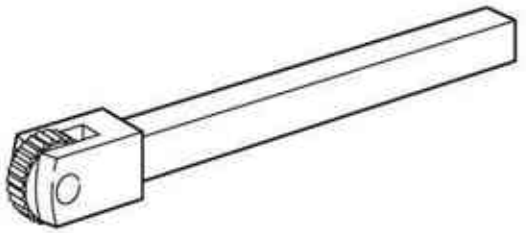
N° de commande: joindre dans cet ordre au type de molettes le numéro d'identification à la référence (dimension, angle d'hélice β, pas, matériel), par exemple: RDBL-08 03 03-45-0,5-HM

Order number: Add ident. No. to type of roll (sequences of codes are type of roll, dimension, angle β, pitch, material), e.g.: RDBL-08 03 03-45-0,5-HM

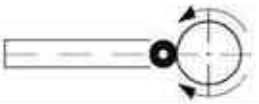
Einfach-Rändeldrückhalter | Porte-molettes simple pour moletage par déformation | Conventional knurling roll holder for knurling by deformation



RASN



Mögliche Rändelungen	Moletages possibles	Knurling applications			
			Längsrändel mit Rändelrollen RDAA	Moletage longitudinal avec molettes RDAA	Longitudinal knurl with knurling rolls RDAA
			Kreuzrändel mit Rändelrollen RDGE/RDGV	Moletage croisé avec molettes RDGE/RDGV	Cross knurl with knurling rolls RDGE/RDGV
Für Laufrichtung der Drehmaschine	Pour le sens de rotation du tour	Spindle rotation			



Haltertyp				Type de porte-molettes				Type of knurling roll holder		RASN – ...
∅	C	E	L	für Rollen / pour molettes / for rolls D min – max	x	B	x	d	Ident. No.	
7	8	2	120	8	x	4	x	3	... – 0743	△
8	8	2	120	8	x	4	x	3	... – 0843	●
7	10	3	120	10-15	x	4	x	4	... – 0744	△
8	10	3	120	10-15	x	4	x	4	... – 0844	●
10	10	3	120	10-15	x	4	x	4	... – 1044	●
8	12	3,5	120	15	x	5	x	5	... – 0855	●
10	12	3,5	120	15	x	5	x	5	... – 1055	●
12	12	3,5	120	15	x	5	x	5	... – 1255	●
10	16	4	160	20	x	8	x	6	... – 1086	●
12	16	4	160	20	x	8	x	6	... – 1286	●
12	20	5	160	20	x	10	x	6	... – 12106	●
20	20	5	160	20	x	10	x	6	... – 20106	●

Lieferbarkeit:
● Lieferbar ab Lager
△ Solange Vorrat

Disponibilité:
● Livrable du stock
△ Jusqu'à épuisement du stock

Availability:
● Available ex stock
△ Until use up of stock

Bedienungsanleitung
- Werkzeug anstellen unter 88° (vordere Kante in Vorschubrichtung) für Rändelung > Rändelradbreite.
- 90° für Einstechrändel.
- Umfangsgeschwindigkeit V des Werkstückes ca. 20 m/Min.
- Volles Rändelbild in max. 4 Umdrehungen zu erreichen. Radialvorschub s ca. ½ Teilung/U, jedoch mind. 0,3 mm/U.
- Kühlung mit Bohremulsion empfohlen.
- Materialverdrängung siehe Seite 8.

Mode d'emploi
- Placer l'outil à 88° par rapport à la pièce à usiner (angle avant en direction de l'avance) pour moletage > que la largeur de la molette.
- 90° pour moletage de saignée.
- Vitesse de circonférence de la pièce à usiner env. 20 m/min.
- Profondeur du moletage à atteindre en 4 rotations au maximum. Avance radiale s env. ½ pas/t, mais au moins 0,3 mm/t.
- Lubrification à l'émulsion recommandée.
- Déformation du matériel en page 8.

Set-up instructions
- 2° offset (clearance) on leading edge of roll.
- No offset for plunge operation only.
- Surface speed V of workpiece approx. 20 m/min.
- Advance to full knurling depth in 4 revolutions. Radial feed s approx. half pitch/rev., but at least 0,3 mm/rev.
- Cooling by lubricant recommended.
- Growth of diameter of workpiece see page 8.

Rändelrollen siehe Seiten 14, 15 und 18.

Molettes pour moletage par déformation voir pages 14, 15 et 18.

Knurling roll holders for knurling by deformation on pages 14, 15 and 18.

Allgemeine Hinweise zum Rändeldrücken siehe Seite 10.

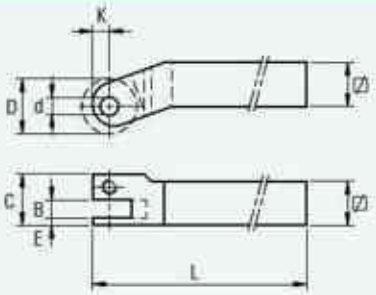
Indications générales au sujet du moletage par déformation en page 10.

General directions for knurling by deformation on page 10.

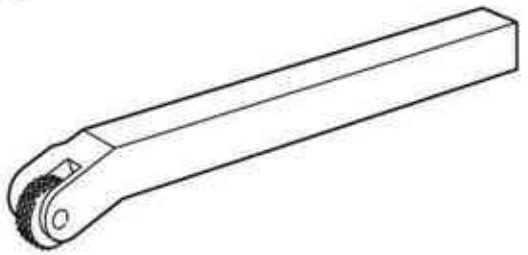
Bestell-Nr.: entsprechenden Haltertyp und Ident.-Nr. in dieser Reihenfolge zusammenfügen: z.B. RASN-0743

N° de commande: joindre dans cet ordre au type de porte-molettes le numéro d'identification à la référence, par exemple: RASN-0743

Order number: Add ident. No. to type of knurling roll holder, e.g.: RASN-0743



RCSL

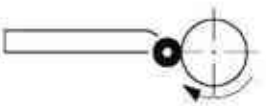


Mögliche Rändelungen | Moletages possibles | Knurling applications

Längsrändel mit Rändelrollen RDAA | Moletage longitudinal avec molettes RDAA | Longitudinal knurl with knurling rolls RDAA

Kreuzrändel mit Rändelrollen RDGE/RDGV | Moletage croisé avec molettes RDGE/RDGV | Cross knurl with knurling rolls RDGE/RDGV

Für Werkzeuglage Laufrichtung der Drehmaschine | Pour position d'outil sens de rotation du tour | Positioning of roll and holder relative to spindle rotation



Haltertyp			Type de porte-molettes				Type of knurling roll holder				RCSL –_
∅	E	C	L	K	für Rollen / pour molettes / for rolls D min – max	x	B	x	d	Ident. No.	
6	1,5	10	120	3,3	8 – 10	x	3	x	3	_ – 0633	△
7	1,5	10	120	3,3	8 – 10	x	3	x	3	_ – 0733	●
7	1,5	11	120	3,3	8 – 10	x	4	x	3	_ – 0743	●
8	1,5	10	120	3,3	8 – 10	x	3	x	3	_ – 0833	●
8	1,5	11	120	3,3	8 – 10	x	4	x	3	_ – 0843	●
8	1,5	11	120	3,9	10 – 15	x	4	x	4	_ – 0844	●
8	1,5	13	120	3,9	15	x	5	x	5	_ – 0855	●
10	1,5	10	135	3,4	8 – 10	x	3	x	3	_ – 1033	●
10	1,5	11	135	4,1	10 – 15	x	4	x	4	_ – 1044	●
10	2,0	13	135	4,1	15	x	5	x	5	_ – 1055	●
12	2,0	12	150	4,1	10 – 15	x	4	x	4	_ – 1244	●
12	2,0	13	150	4,1	15	x	5	x	4	_ – 1254	●
12	2,0	13	150	4,1	15	x	5	x	5	_ – 1255	●
14	2,0	14	150	5	10 – 15	x	4	x	4	_ – 1444	●
14	2,0	14	150	5	15	x	5	x	5	_ – 1455	●
14	2,0	14	150	5	20	x	6	x	6	_ – 1466	●

Lieferbarkeit:
● Lieferbar ab Lager
△ Solange Vorrat

Disponibilité:
● Livrable du stock
△ Jusqu'à épuisement du stock

Availability:
● Available ex stock
△ Until use up of stock

Rändelrollen siehe Seiten 14, 15 und 18.

Molettes pour moletage par déformation voir pages 14, 15 et 18.

Knurling roll holders for knurling by deformation on pages 14, 15 and 18.

Allgemeine Hinweise zum Rändeldrücken siehe Seite 10.

Indications générales au sujet du moletage par déformation en page 10.

General directions for knurling by deformation on page 10.

Bedienungsanleitung siehe Seite 19.

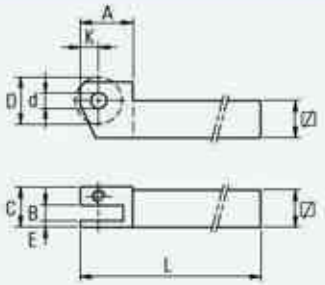
Mode d'emploi en page 19.

Set-up instructions on page 19.

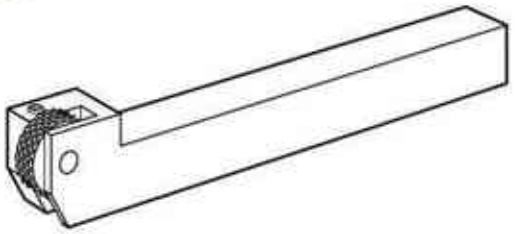
Bestell-Nr.: entsprechenden Haltertyp und Ident.-Nr. in dieser Reihenfolge zusammenfügen: z.B. RCSL-0633

N° de commande: joindre dans cet ordre au type de porte-molettes le numéro d'identification à la référence, par exemple: RCSL-0633

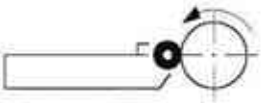
Order number: Add ident. No. to type of knurling roll holder, e.g.: RCSL-0633



RCSR



Mögliche Rändelungen	Moletages possibles	Knurling applications			
			Längsrändel mit Rändelrollen RDAA	Moletage longitudinal avec molettes RDAA	Longitudinal knurl with knurling rolls RDAA
			Kreuzrändel mit Rändelrollen RDGE/RDGV	Moletage croisé avec molettes RDGE/RDGV	Cross knurl with knurling rolls RDGE/RDGV
Für Werkzeuglage Laufrichtung der Drehmaschine	Pour position d'outil sens de rotation du tour	Positioning of roll and holder relative to spindle rotation			



Haltertyp							Type de porte-molettes				Type of knurling roll holder	RCSR –...
∅	E	C	L	A	K	für Rollen / pour molettes / for rolls D min – max	x	B	x	d	Ident. No.	
8	1,5	10	100	11	3	8 – 10	x	3	x	3	... – 0833	•
8	1,5	11	100	11	3	8 – 10	x	4	x	3	... – 0843	•
8	1,5	11	100	13	4	10 – 12	x	4	x	4	... – 0844	•
8	1,5	13	100	16,5	5	15	x	5	x	5	... – 0855	•
10	1,5	10	100	11	3	8 – 10	x	3	x	3	... – 1033	•
10	1,5	11	100	14,5	4	10 – 15	x	4	x	4	... – 1044	•
10	2,0	13	100	16,5	5	15	x	5	x	5	... – 1055	•
12	2,0	12	115	15	4	10 – 15	x	4	x	4	... – 1244	•
12	2,0	13	115	17	6	15	x	5	x	4	... – 1254	•
12	2,0	13	115	17	6	15	x	5	x	5	... – 1255	•
16	2,0	16	120	15	4	10 – 15	x	4	x	4	... – 1644	•
16	2,0	16	120	17	6	15	x	5	x	4	... – 1654	•
16	2,0	16	120	17	6	15	x	5	x	5	... – 1655	•
16	2,0	20	120	21,5	7,5	20	x	8	x	6	... – 1686	•
20	2,0	20	120	17	6	15	x	5	x	5	... – 2055	•
20	2,0	20	120	17	6	15	x	6	x	4	... – 2064	•
20	2,0	20	120	21,5	7,5	20	x	6	x	6	... – 2066	•
20	2,0	20	120	21,5	7,5	20	x	8	x	6	... – 2086	•
20	2,5	20	120	21,5	7,5	20	x	10	x	6	... – 20106	•

Lieferbarkeit:
● Lieferbar ab Lager

Disponibilité:
● Livrable du stock

Availability:
● Available ex stock

Rändelrollen siehe Seiten 14, 15 und 18.

Molettes pour moletage par déformation voir pages 14, 15 et 18.

Knurling roll holders for knurling by deformation on pages 14, 15 and 18.

Allgemeine Hinweise zum Rändeldrücken siehe Seite 10.

Indications générales au sujet du moletage par déformation en page 10.

General directions for knurling by deformation on page 10.

Bedienungsanleitung siehe Seite 19.

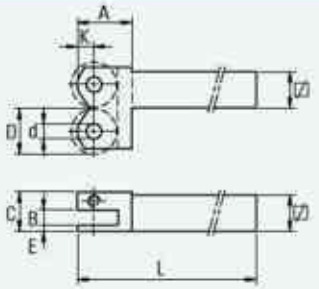
Mode d'emploi en page 19.

Set-up instructions on page 19.

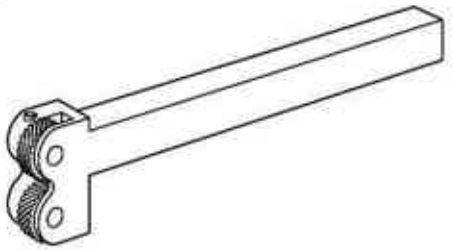
Bestell-Nr.: entsprechenden Haltertyp und Ident.-Nr. in dieser Reihenfolge zusammenfügen: z.B. RCSR-0833

N° de commande: joindre dans cet ordre au type de porte-molettes le numéro d'identification à la référence, par exemple: RCSR-0833

Order number: Add ident. No. to type of knurling roll holder, e.g.: RCSR-0833



RCDL

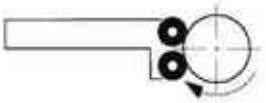


Mögliche Rändelungen | Moletages possibles | Knurling applications

Kreuzrändel mit Rändelrollen RDBL/RDBR 45° | Moletage croisé avec molettes RDBL/RDBR 45° | Cross knurl 45° with knurling rolls RDBL/RDBR 45°

Fischhauträndel mit Rändelrollen RDBL/RDBR 30° | Moletage en losange avec molettes RDBL/RDBR 30° | Diamond knurl 30° with knurling rolls RDBL/RDBR 30°

Für Werkzeuglage Laufrichtung der Drehmaschine | Pour position d'outil sens de rotation du tour | Positioning of roll and holder relative to spindle rotation



Haltertyp / Type de porte-molettes / Type of knurling roll holder						für Rollen / pour molettes / for knurling						RCDL –...
⌀	C	E	L	A	K	D	x	B	x	d	Ident. No.	
6	10	1,5	120	10	3	8	x	3	x	3	... – 0633/08	•
7	10	1,5	120	10	3	8	x	3	x	3	... – 0733/08	•
7	11	1,5	120	10	3	8	x	4	x	3	... – 0743/08	•
8	10	1,5	135	10	3	8	x	3	x	3	... – 0833/08	•
8	10	1,5	135	11,5	3,5	10	x	3	x	3	... – 0833/10	•
8	12	1,5	135	10	3	8	x	4	x	3	... – 0843/08	•
10	10	1,5	135	10	3	8	x	3	x	3	... – 1033/08	•
10	10	1,5	135	11,5	3,5	10	x	3	x	3	... – 1033/10	•
10	12	1,5	135	10	3	8	x	4	x	3	... – 1043/08	•
10	12	2,0	135	11,5	3,5	10	x	4	x	4	... – 1044/10	•
12	12	2,0	150	11,5	3,5	10	x	4	x	4	... – 1244/10	•

Lieferbarkeit:
● Lieferbar ab Lager

Rändelrollen siehe Seiten 14, 15 und 18.

Allgemeine Hinweise zum Rändeldrücken siehe Seite 10.

Bedienungsanleitung siehe Seite 19.

Bestell-Nr.: entsprechenden Haltertyp und Ident.-Nr. zusammenfügen, z.B. RCDL-0633/08

Disponibilité:
● Livrable du stock

Molettes pour moletage par déformation voir pages 14, 15 et 18.

Indications générales au sujet du moletage par déformation en page 10.

Mode d'emploi en page 19.

N° de commande: joindre au type de porte-molettes le numéro d'identification à la référence, par exemple: RCDL-0633/08

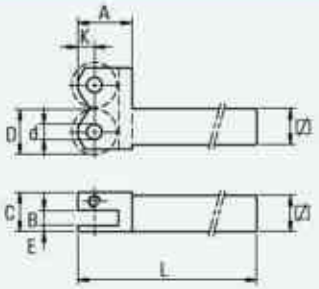
Availability:
● Available ex stock

Knurling roll holders for knurling by deformation on pages 14, 15 and 18.

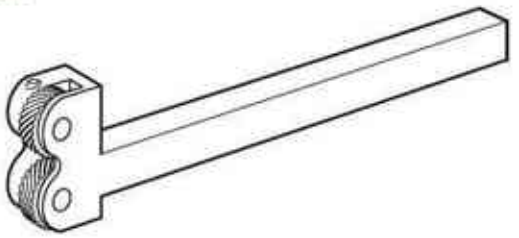
General directions for knurling by deformation on page 10.

Set-up instructions on page 19.

Order number: Add ident. No. to type of knurling roll holder, e.g.: RCDL-0633/08

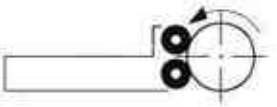


RCDR



Mögliche Rändelungen	Moletages possibles	Knurling applications			
			Kreuzrändel mit Rändelrollen RDBL/RDBR 45°	Moletage croisé avec molettes RDBL/RDBR 45°	Cross knurl 45° with knurling rolls RDBL/RDBR 45°
			Fischhauträndel mit Rändelrollen RDBL/RDBR 30°	Moletage en losange avec molettes RDBL/RDBR 30°	Diamond knurl 30° with knurling rolls RDBL/RDBR 30°

Für Werkzeuglage Laufrichtung der Drehmaschine	Pour position d'outil sens de rotation du tour	Positioning of roll and holder relative to spindle rotation



Haltertyp	Type de porte-molettes	Type of knurling roll holder										RCDR-...
						für Rollen / pour molettes / for rolls						
⌀	C	E	L	A	K	D	x	B	x	d	Ident. No.	
8	10	1,5	100	10	3	8	x	3	x	3	... – 0833/08	•
8	10	1,5	100	12	3,5	10	x	3	x	3	... – 0833/10	•
10	10	1,5	100	10	3	8	x	3	x	3	... – 1033/08	•
10	10	1,5	100	12	3,5	10	x	3	x	3	... – 1033/10	•
10	12	2,0	100	12	3,5	10	x	4	x	3	... – 1043/10	•
10	12	2,0	100	12	4	10	x	4	x	4	... – 1044/10	•
12	12	2,0	115	12	4	10	x	4	x	4	... – 1244/10	•
12	12	2,0	115	18	5,5	15	x	4	x	4	... – 1244/15	•
12	12	2,0	115	18	5,5	15	x	5	x	4	... – 1254/15	•
12	12	2,0	115	18	5,5	15	x	5	x	5	... – 1255/15	•
16	16	2,0	120	18	5,5	15	x	4	x	4	... – 1644/15	•
16	16	2,0	120	18	5,5	15	x	5	x	4	... – 1654/15	•
16	16	2,0	120	18	5,5	15	x	5	x	5	... – 1655/15	•
16	16	2,0	120	18	5,5	15	x	6	x	4	... – 1664/15	•
20	20	2,0	120	18	5,5	15	x	4	x	4	... – 2044/15	•
20	20	2,0	120	18	5,5	15	x	5	x	4	... – 2054/15	•
20	20	2,0	120	18	5,5	15	x	6	x	4	... – 2064/15	•
20	20	2,0	120	21	6,5	20	x	6	x	6	... – 2066/20	•
20	20	2,0	120	21	6,5	20	x	8	x	6	... – 2086/20	•

Lieferbarkeit:
● Lieferbar ab Lager

Disponibilité:
● Livrable du stock

Availability:
● Available ex stock

Rändelrollen siehe Seiten 14, 15 und 18.

Molettes pour moletage par déformation voir pages 14, 15 et 18.

Knurling roll holders for knurling by deformation on pages 14, 15 and 18.

Allgemeine Hinweise zum Rändeldrücken siehe Seite 10.

Indications générales au sujet du moletage par déformation on page 10.

General directions for knurling by deformation on page 10.

Bedienungsanleitung siehe Seite 19.

Mode d'emploi en page 19.

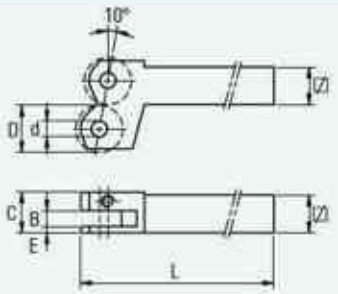
Set-up instructions on page 19.

Bestell-Nr.: entsprechenden Haltertyp und Ident.-Nr. zusammenfügen, z.B. RCDR-0833/08

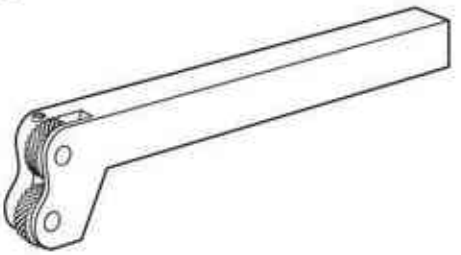
N° de commande: joindre au type de porte-molettes le numéro d'identification à la référence, par exemple: RCDR-0833/08

Order number: Add ident. No. to type of knurling roll holder, e.g.: RCDR-0833/08

Rändeldrückhalter für TORNOS-Automaten | Porte-molettes pour moletage par déformation pour tours automatiques TORNOS | Knurling roll holder for knurling by deformation on TORNOS screw machines



RTDL

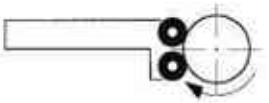


Mögliche Rändelungen | Moletages possibles | Knurling applications

Kreuzrändel mit Rändelrollen RDBL/RDBR 45° | Moletage croisé avec molettes RDBL/RDBR 45° | Cross knurl 45° with knurling rolls RDBL/RDBR 45°

Fischhauträndel mit Rändelrollen RDBL/RDBR 30° | Moletage en losange avec molettes RDBL/RDBR 30° | Diamond knurl 30° with knurling rolls RDBL/RDBR 30°

Verwendung: TORNOS-Automaten, Werkzeugstation Nr. 2 | A utiliser dans le porte-outil n° 2 du tour automatique TORNOS | For use on TORNOS screw machines, tool post No. 2



Haltertyp / Type de porte-molettes / Type of knurling roll holder										RTDL –_
				für Rollen / pour molettes / for rolls						
☑	C	E	L	D	x	B	x	d	Ident. No.	
6	10	1,5	120	8	x	3	x	3	... – 0633/08	•
7	10	1,5	120	8	x	3	x	3	... – 0733/08	•
7	10	1,5	120	8	x	4	x	3	... – 0743/08	•
8	10	1,5	120	8	x	3	x	3	... – 0833/08	•
8	10	1,5	120	8	x	4	x	3	... – 0843/08	•
10	10	1,5	150	10	x	4	x	4	... – 1044/10	•
12	12	2	150	10	x	4	x	4	... – 1244/10	•
12	12	2	150	15	x	4	x	4	... – 1244/15	•

Lieferbarkeit:
● Lieferbar ab Lager

Disponibilité:
● Livrable du stock

Availability:
● Available ex stock

Rändelrollen siehe Seiten 14 und 18.

Molettes pour moletage par déformation voir pages 14 et 18.

Knurling roll holders for knurling by deformation on pages 14 and 18.

Allgemeine Hinweise zum Rändeldrücken siehe Seite 10.

Indications générales au sujet du moletage par déformation en page 10.

General directions for knurling by deformation on page 10.

Bedienungsanleitung siehe Seite 19.

Mode d'emploi en page 19.

Set-up instructions on page 19.

Bestell-Nr.: entsprechenden Haltertyp und Ident.-Nr. zusammenfügen, z.B. RTDL-0633/08

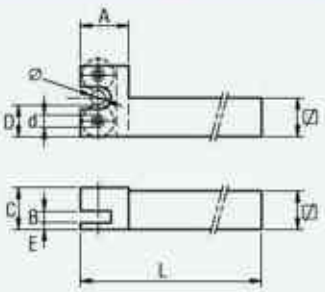
N° de commande: joindre au type de porte-molette le numéro d'identification à la référence, par exemple: RTDL-0633/08

Order number: Add ident. No. to type of knurling roll holder, e.g.: RTDL-0633/08

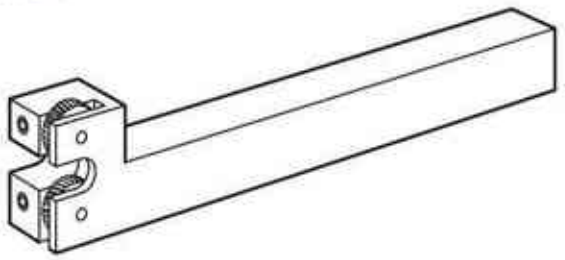
Verstellbarer Rändeldrückhalter

Porte-molettes réglable pour moletage par déformation

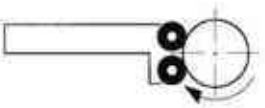
Adjustable knurling roll holder for knurling by deformation



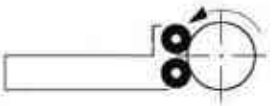
RVDR



Mögliche Rändelungen	Moletages possibles	Knurling applications			
			Kreuzrändel mit Rändelrollen RDBL/RDBR 45°	Moletage croisé avec molettes RDBL/RDBR 45°	Cross knurl 45° with knurling rolls RDBL/RDBR 45°
			Fischhauträndel mit Rändelrollen RDBL/RDBR 30°	Moletage en losange avec molettes RDBL/RDBR 30°	Diamond knurl 30° with knurling rolls RDBL/RDBR 30°
Für Werkzeuglage Laufrichtung der Drehmaschine	Pour position d'outil sens de rotation du tour	Positioning of roll and holder relative to spindle rotation			



RVDL



RVDR

Funktionsweise Rändelhalter RVDR

- Die Rollen befinden sich auf exzentrischen Verstellachsen.
- Einstellen des Rändeldurchmessers durch Verdrehen der Achsen.
- Die Schraubenschlitze sind so orientiert, dass sie in senkrechter Stellung den grössten bzw. kleinsten Rollenabstand ergeben.
- Verstellachsen gleichmässig gegeneinander verdrehen, bis die Rollen genau ausgerichtet sind.
- Rollen und Werkstück müssen auf einer Linie liegen, um die Axialkräfte aufzuheben.
- Einstellen der Rollen mit in die Maschine gespanntem Dorn der Grösse des Kerndurchmessers oder freihändig mit Werkstattendmass der fraglichen Grösse. Beide Rollen gleichmässig verstellen, bis der Dorn bzw. das Endmass im Anschlag auf einer Linie rechtwinklig zum Halterschaft dazwischensteht.
- Verstellachsen mit Arretierschrauben stirnseits des Halters klemmen.
- Die Rändelhalter werden nach Vorgabe kurzfristig hergestellt.
- Für linksdrehende Maschinen als RVDL lieferbar.

Fonctionnement de porte-molettes RVDR

- Les molettes se trouvent sur des axes excentriques réglables.
- Ajuster le diamètre du moletage en tournant les axes.
- Les fentes de serrage des vis sont orientées de façon à ce qu'il en résulte, en position verticale, la plus grande ou la plus petite distance entre les molettes.
- Tourner les axes de manière régulière jusqu'à ce que les molettes sont exactement positionnées l'une en face de l'autre.
- Les molettes et la pièce à usiner doivent être parfaitement alignées pour compenser les forces axiales.
- Régler l'écartement des molettes à l'aide d'une cale d'épaisseur ou sur la machine en tournant une pièce au diamètre de noyau du moletage. Déplacer régulièrement les molettes jusqu'à ce qu'elles butent contre la cale ou la pièce et qu'elles forment une ligne droite et perpendiculaire par rapport à la tige du porte-molettes.
- Bloquer les axes réglables avec les vis de blocage sur le devant du porte-molettes.
- Les porte-molettes sont fabriqués selon besoin à brève échéance.
- Pour machines à marche à gauche utiliser type RVDL.

How the knurling roll holder RVDR works

- The knurling rolls are placed on eccentrical adjustable arbours.
- Set the diameter of the knurling by turning the arbours.
- The screws are positioned in the way that the smallest and the largest distance between the knurling rolls are reached when the slots of the screw heads are in vertical position.
- Twist arbours orderly against each other until the rolls are perfectly aligned.
- The knurling rolls and the part to be knurled must be perfectly aligned to compensate axial strength.
- Knurling rolls to be set freehand by means of a gauge block of the measurement of the core diameter of the knurl or by means of a mandrel of diameter of core clamped on the machine. Move the knurling rolls regularly until they touch the gauge block or the mandrel in a straight perpendicular line to the shank of the knurling holder.
- Screw down the adjustable arbours by means of fixing screws on the front of the knurling holder.
- The knurling holders are manufactured according to requirement within short time.
- For anticlockwise running machines use type RVDL.

Rändelrollen siehe Seiten 14 und 18.

Allgemeine Hinweise zum Rändeldrücken siehe Seite 10.

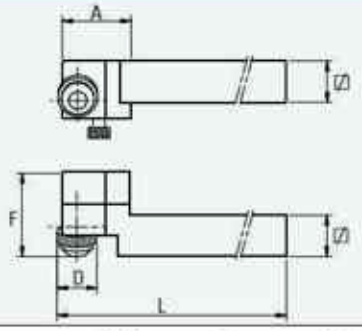
Molettes en pages 14 et 18.

Indications générales au sujet du moletage par déformation en page 10.

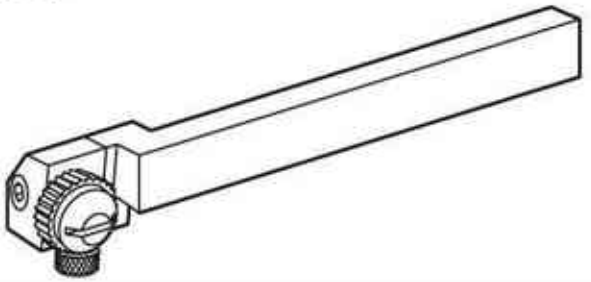
Knurling rolls on pages 14 and 18.

General directions for knurling by deformation on page 10.

Rändelfräshalter | Porte-molettes pour moletage par fraisage | Knurling roll holder for knurling by cutting



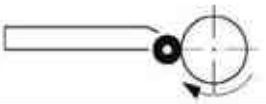
RZSL



Mögliche Rändelungen | Moletages possibles | Knurling applications

Längsrändel mit Rändelrolle RFBL 15° | Moletage longitudinal avec molette RFBL 15° | Longitudinal knurl with roll RFBL 15°

Für Laufrichtung der Drehmaschine | Pour sens de rotation au tour | Positioning of roll holder relative to spindle rotation



Haltertyp / Type de porte-molettes / Type of knurling roll holder										RZSL –...
				für Rollen / pour molettes / for knurling rolls						
∅	L	F	A	D	x	B	x	d	Ident. No.	
8	135	22	18	11	x	3	x	6	_ – 0836	•
10	135	24	18	11	x	3	x	6	_ – 1036	•
12	135	24	21	11	x	3	x	6	_ – 1236	•

Rändelrollen siehe Seiten 17 – 18.

Auftretende Rändelfräsprobleme siehe Seite 11.

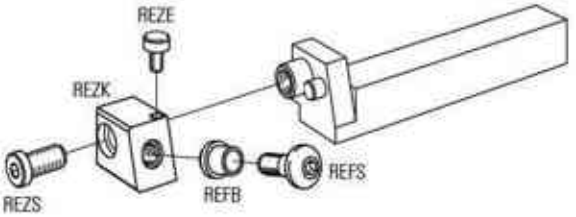
Molettes en pages 17-18.

Problèmes de moletage par fraisage et leurs solutions en page 11.

Knurling rolls on pages 17 – 18.

Trouble-shooting guide when knurling by cutting on page 11.

Ersatzteile zu RZS... | Pièces de rechange pour RZS... | Spare parts for RZS...



Ersatzteil für / Pièce de rechange pour / Spare part for		REFB ...	REFS ...	REZE ...	REZK ...	REZS ...
RZSL-0836	..0036	•	•	•		•
RZSL-0836	..0036 L				•	
RZSL-1036	..0136	▲	▲	▲	•	▲
RZSL-1236	..0236	▲	▲	▲	•	▲
RZSR-0836, -1036, -1236, -1636	..0036	•	•	•	•	•
RZSR-1649	..1049	•	•	•	•	•
RZSR-20511	..2511	•	•	•	•	•
RZSR-25511	..3511	•	•	•	•	•

▲ Siehe RZSL-0836 / Voir RZSL-0836 / See RZSL-0836

Lieferbarkeit:
● Lieferbar ab Lager

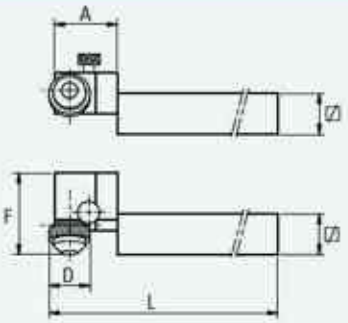
Disponibilité:
● Livrable du stock

Availability:
● Available ox stock

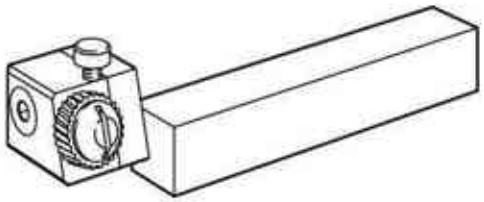
Bestell-Nr.: entsprechenden Haltertyp und Ident.-Nr. zusammenfügen, z.B. RZSL-0836

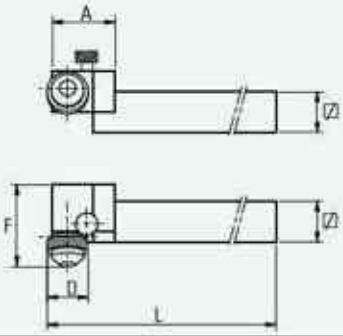
N° de commande: joindre au type de porte-molette le numéro d'identification à la référence, par exemple: RZSL-0836

Order number: Add ident. No. to type of knurling roll holder, e.g.: RZSL-0836

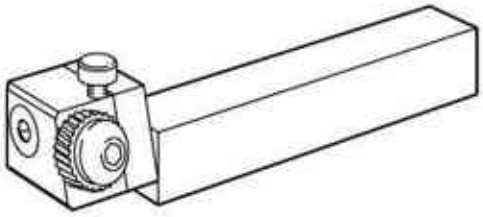


RZSR-K





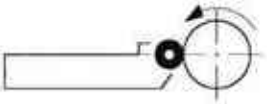
RZSR



Mögliche Rändelungen | Moletages possibles | Knurling applications

Längsrändel mit Rändelrolle RFBR 15° | Moletage longitudinal avec molette RFBR 15° | Longitudinal knurl with roll RFBR 15°

Für Laufrichtung der Drehmaschine | Pour sens de rotation du tour | Positioning of roll holder relative to spindle rotation



Haltertyp / Type de porte-molettes / Type of knurling roll holder										RZSR –_-K	RZSR –_
				für Rollen / pour molettes / for knurling rolls					Ident. No.		
⌀	L	F	A	D	x	B	x	d			
8	100	24	19	11	x	3	x	6	... – 0836	●	
10	110	24	19	11	x	3	x	6	... – 1036	●	●
12	110	24	19	11	x	3	x	6	... – 1236	●	●
16	110	24	19	11	x	3	x	6	... – 1636	●	
16	110	31	25	15	x	4	x	9	... – 1649	○	●
20	130	36	30	20	x	5	x	11	... – 20511		●
25	130	41	35	25	x	5	x	11	... – 25511		●

Lieferbarkeit:
● Lieferbar ab Lager

Bedienungsanleitung
- Apparat in Drehstahlhalter spannen und auf Spitzenhöhe stellen.
- Mit ca. 1/3 der Rollenbreite radial zügig einfahren. Vorschub/U ca. 1/2 Teilung. Wenn Randrierbild ausgeschnitten, Längsvorschub einschalten.
- Drall auf Randrierbild durch Verstellen des beweglichen Kopfes mittels Schrauben beheben.
- Mit Schneidöl, evtl. Bohremulsion, die Frässpäne gut wegspülen.
- Schnittwerte (V+s) siehe Seite 9.

Rändelrollen siehe Seiten 17 – 18.

Auftretende Rändelfräsprobleme und deren Lösung siehe Seite 11.

Bestell-Nr.: entsprechenden Haltertyp und Ident.-Nr. zusammenfügen, z.B.: RZSR-1036 oder RZSR-1036-K

Disponibilité:
● Livrable du stock

Mode d'emploi
- Serrer l'appareil dans le porte-outils et le régler à la hauteur de pointe.
- Approcher en direction radiale sans hésitation avec env. 1/3 de la largeur de la molette dans la pièce, avance/t. env. demi-pas. Mettre en marche l'avance longitudinale.
- En cas de torsion du profil, corriger en déplaçant la tête mobile au moyen des vis.
- Bien évacuer les copeaux au moyen d'huile de coupe ou de lubrifiant.
- Valeurs de coupe (V+s) en page 9.

Molettes en pages 17-18.

Problèmes de moletage par fraisage et leurs solutions en page 11.

N° de commande: joindre au type de porte-molette le numéro d'identification à la référence, par exemple: RZSR-1036 ou RZSR-1036-K

Availability:
● Available ex stock

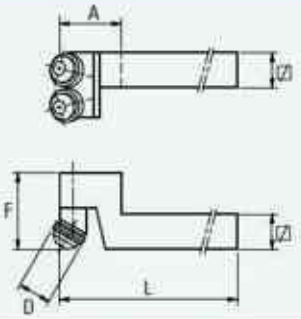
Set-up instructions
- Clamp the roll holder in the tool post and set its centre to the centre of the workpiece.
- Start knurling operation firmly with rapid infeed to half pitch with knurling roll engaged to 1/3 of width. When the initial pattern is cut, start longitudinal feed.
- Errors in knurling pattern can be corrected by resetting the adjustable roll holder head.
- Flush away the chips with cutting oil or lubricant.
- Cutting data (V+s) see page 9.

Knurling rolls on pages 17 –18.

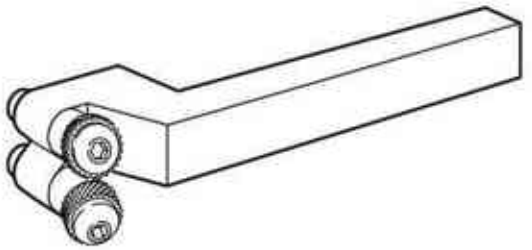
Trouble-shooting guide when knurling by cutting on page 11.

Order number: Add ident. No. to type of knurling roll holder, e.g.: RZSR-1036 or RZSR-1036-K

Rändelfräshalter | Porte-molettes pour moletage par fraisage | Knurling roll holder for knurling by cutting

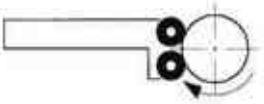


RKDL



Mögliche Rändelungen	Moletages possibles	Knurling applications
Kreuzrändel mit je einer Rändelrolle RFBR und RFBL 15°	Moletage croisé avec une molette de chaque RFBR et RFBL 15°	Cross knurl 45° with one roll each RFBR and RFBL 15°
Fischhauträndel mit 2 Rändelrollen RFAA	Moletage en losange avec 2 molettes RFAA	Diamond knurl 30° with 2 rolls RFAA

Für Laufrichtung der Drehmaschine	Pour sens de rotation du tour	Positioning of roll holder relative to spindle rotation



Haltertyp / Type de porte-molettes / Type of knurling roll holder											RKDL–...
				für Werkstück / pour pièce à usiner / for workpiece	für Rollen / pour molettes / for knurling rolls					Ident. No.	
∅	L	F	A		D	x	B	x	d		
8	135	22	18	3 – 40	11	x	3	x	6	... – 0836	•
10	135	24	18	3 – 40	11	x	3	x	6	... – 1036	•
12	135	24	21	3 – 40	11	x	3	x	6	... – 1236	•

Rändelrollen siehe Seiten 16 – 18.

Molettes en pages 16-18.

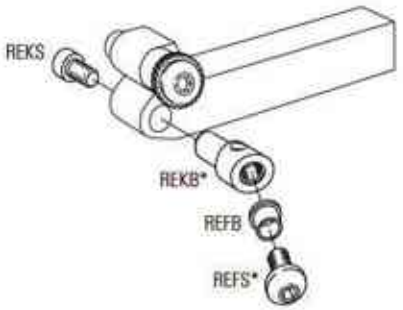
Knurling rolls on pages 16 – 18.

Auftretende Rändelfräsprobleme siehe Seite 11.

Problèmes de moletage par fraisage et leurs solutions en page 11.

Trouble-shooting guide when knurling by cutting on page 11.

Ersatzteile zu RKD... | Pièces de rechange pour RKD... | Spare parts for RKD...



ACHTUNG/ATTENTION/ATTENTION:
*Auf Wunsch auch mit Linksgewinde lieferbar.
*Sur demande, livrable aussi avec filet à gauche.
*On request also with left-hand thread available.

Ersatzteil für / Pièce de rechange pour / Spare part for		REFB – ...	REFS – ...	REKB – ...	REKS– ...
RKDL-0836, -1036, -1236 RKDR-0836, -1036, -1236, -1636	..0036	•	•	•	•
RKDL-1649, RKDR-1649	..1049	•	•	•	•
RKDR-20511	..2511	•	•	•	•
RKDR-25511	..3511	•	•	•	•

Lieferbarkeit:
● Lieferbar ab Lager

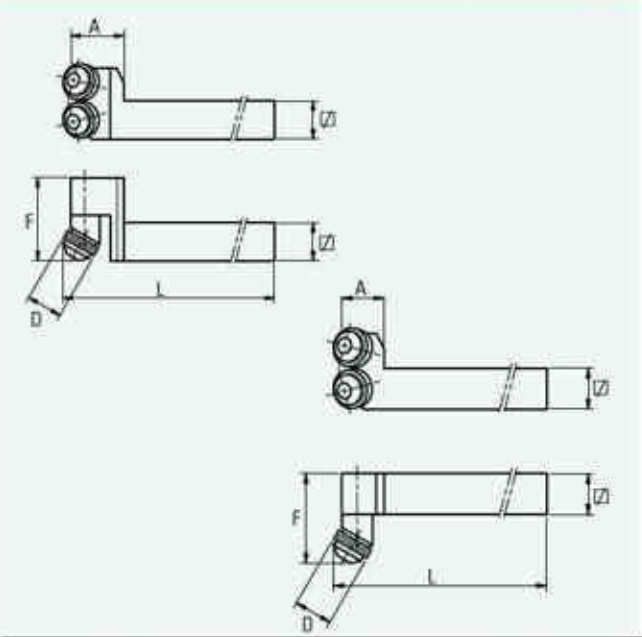
Disponibilité:
● Livrable du stock

Availability:
● Available ex stock

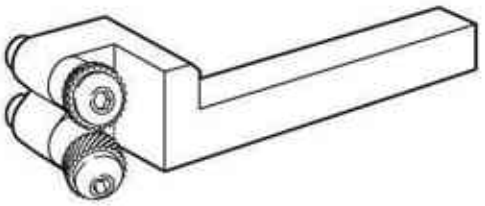
Bestell-Nr.: entsprechenden Haltertyp und Ident.-Nr. zusammenfügen, z.B. RKDL-0836

N° de commande: joindre au type de porte-molette le numéro d'identification à la référence, par exemple: RKDL-0836

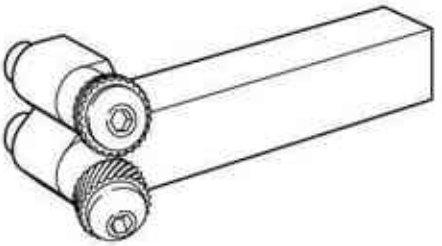
Order number: Add ident. No. to type of knurling roll holder, e.g.: RKDL-0836



RKDR-K



RKDR

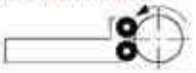


Mögliche Rändelungen | Moletages possibles | Knurling applications

Kreuzrändel mit je einer Rolle RFBR und RFBL 15° | Moletage croisé avec une molette de chaque RFBR et RFBL 15° | Cross knurl 45° with one roll each RFBR and RFBL 15°

Fischhauträndel mit 2 Rändelrollen RFAA | Moletage en losange avec 2 molettes RFAA | Diamond knurl 30° with 2 rolls RFAA

Für Laufrichtung der Drehmaschine | Pour sens de rotation du tour | Positioning of roll holder relative to spindle rotation



Haltertyp / Type de porte-molettes / Type of knurling roll holder											RKDR –...-K	RKDR –...
Ø	L	F	A	für Werkstück ⌀ / pour pièce à usiner ⌀ / for workpiece ⌀	für Rollen / pour molettes / for knurling rolls D	x	B	x	d	Ident. No.		
8	110	24	20	3 – 40	11	x	3	x	6	... – 0836	•	
10	90	27	14	3 – 40	11	x	3	x	6	... – 1036		•
10	110	24	20	3 – 40	11	x	3	x	6	... – 1036	•	
12	90	27	14	3 – 40	11	x	3	x	6	... – 1236		•
12	110	24	20	3 – 40	11	x	3	x	6	... – 1236	•	
16	110	24	20	4 – 60	11	x	3	x	6	... – 1636	•	
16	105	39	17	4 – 60	15	x	4	x	9	... – 1649		•
16	115	35	25	4 – 60	15	x	4	x	9	... – 1649	•	
20	130	49	23	6 – 100	20	x	5	x	11	... – 20511		•
25	150	62	35	6 – 250	25	x	5	x	11	... – 25511		•

Lieferbarkeit:
● Lieferbar ab Lager

Disponibilité:
● Livrable du stock

Availability:
● Available ex stock

Bedienungsanleitung
- Linke Rolle oben einspannen.
- Apparat in Drehstahlhalter spannen und auf Spitzenhöhe stellen, Spitzenhöhe = zwischen Schrägbolzen.
- Apparat radial an Werkstück heranführen, Schrägbolzen mithilfe eines Stiftes (Bohrung am Schrägbolzen) so verdrehen, bis ganze Breiten der Randrierrollen am Werkstückumfang aufliegen. Inbusschrauben anziehen.
- Mit ca. 1/3 der Rollenbreite radial zügig einfahren, Vorschub/U ca. 1/2 Teilung. Wenn Randrierbild voll ausgeschnitten, Längsvorschub einschalten.
- Mit Schneidöl, evtl. Bohremulsion die Frässpäne gut wegspülen.
- Schnittwerte (V+s) siehe Seite 9.

Mode d'emploi
- Fixer la molette à gauche en haut.
- Serrer l'appareil dans le porte-outils et régler à la hauteur de pointe. Hauteur de pointe: entre les axes inclinés.
- Approcher l'appareil de la pièce en direction radiale, tourner les axes inclinés à l'aide d'un chasse-goupilles (trou dans l'axe) de manière à ce que la largeur entière des molettes soit placée sur le pourtour de la pièce. Serrer les vis à six pans.
- Approcher en direction radiale sans hésitation avec env. 1/3 de la largeur de la molette dans la pièce, avance/t. env. demi-pas. Mettre en marche l'avance longitudinale.
- Bien évacuer les copeaux au moyen d'huile de coupe ou de lubrifiant.
- Valeurs de coupe (V+s) en page 9.

Set-up instructions
- Left-hand side roll to be set at the top.
- Clamp roll holder in the tool post and set its centre between the axes to the centre of the workpiece.
- With the rolls close to the workpiece adjust the roll axes to complete alignment of both rolls over their entire width. Carefully retighten the bolts.
- Start knurling operation firmly with rapid infeed to half pitch with knurling roll engaged to 1/3 width. When the initial pattern is cut, start longitudinal feed.
- Flush away the chips with cutting oil or lubricant.
- Cutting data (V+s) see page 9.

Rändelrollen siehe Seiten 16 – 18.
Auftretende Rändelfräsprobleme und deren Lösung siehe Seite 11.

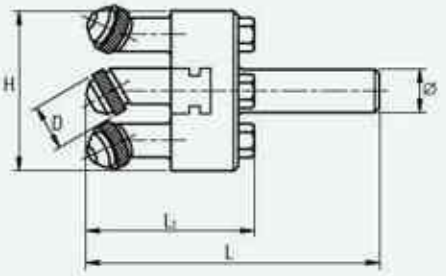
Bestell-Nr.: entsprechenden Haltertyp und Ident.-Nr. zusammenfügen, z.B.: RKDR-1036 oder RKDR-1036-K

Molettes en pages 16-18.
Problèmes de moletage par fraisage et leurs solutions en page 11.

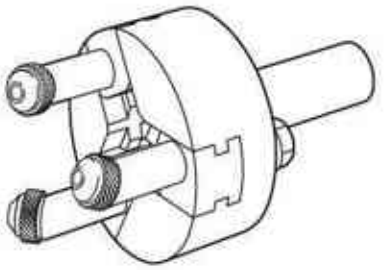
N° de commande: joindre au type de porte-molette le numéro d'identification à la référence, par exemple: RKDR-1036 ou RKDR-1036-K

Knurling rolls on pages 16 – 18.
Trouble-shooting guide when knurling by cutting on page 11.

Order number: Add ident. No. to type of knurling roll holder, e.g.: RKDR-1036 or RKDR-1036-K



RRTN



Mögliche Rändelungen	Moletages possibles	Knurling applications	Kreuzrändel	Moletage croisé	Cross knurl 45°
			Fischhauträndel	Moletage en losange	Diamond knurl 30°
			Rändelrollenordnung beachten	Observer disposition des molettes	Match correct roll to its post
Maximale Rändellänge beachten	Observer longueur maximale de moletage	Pay attention to maximum knurling length			
Verwendbar auf	Utilisable sur	For use on	Revolver-Drehmaschinen Drehautomaten	Tours revolver Tours automatiques	Turret lathes Screw machines

Haltertyp / Type de porte-molettes / Type of knurling roll holder								RRTN –_
∅ mm	L	L_1	H	for Werkstück-∅ / pour pièce à usiner ∅ / for workpiece ∅	max. Rändellänge / longueur max. moletage / max. knurling length	for Rollen / pour molettes / for knurling rolls D × B × d	Ident. No.	
10	71	41	38	∅ 3 – 12×20		11 × 3 × 6	_ – 1036	●
12	97	55	52	∅ 6 – 19×35	∅20×20	15 × 4 × 9	_ – 1249	●
14	97	55	52	∅ 6 – 19×35	∅20×20	15 × 4 × 9	_ – 1449	●
20	133	77	70	∅ 8 – 24×45	∅25 – 33×20	20 × 5 × 11	_ – 20511	●
25	163	97	99	∅ 10 – 31×55	∅32 – 50×30	25 × 5 × 11	_ – 25511	△

● Lieferbar ab Lager
△ Solange Vorrat

Bedienungsanleitung
- Apparat in Revolverkopf-Bohrung einsetzen.
- Damit alle 3 Rollen gleichmässig in Eingriff kommen, auf erstem Werkstück auf 6 mm Länge Andrehung nach folgender Tabelle anbringen.

● Livrable du stock
△ Jusqu'à épuisement du stock

Mode d'emploi
- Fixer l'appareil dans l'alésage de la tête revolver.
- Pour que les 3 molettes soient en prise uniforme, réduire par tournage le ∅ du bout de la première pièce à usiner sur une longueur de 6 mm selon tableau ci-dessous.

● Available ex stock
△ Until use up of stock

Set-up instructions
- Clamp tool in a turret post.
- Test the correct settings of the rolls on a trial workpiece with a machined front section of 6 mm length as listed below.

Teilung / Pas / Pitch	0,3	0,4	0,5	0,6	0,7	0,8	1,0	1,2	1,5
Andreh-∅ um … mm verringern / ∅ du bout à réduire de … mm / Machined ∅ smaller by … mm	0,25	0,3	0,4	0,5	0,55	0,6	0,8	1,0	1,2

- Schrägbolzen in Führungen gegen Mitte verschieben, bis Rollen am angedrehten Werkstück-∅ anliegen.
- Schrauben festziehen.
- Schnittwerte (V+s) siehe Seite 9.

Rändelrollen-Ordnung
- Kreuzrändel GE 45°
  Nm. 1 + 2 = RFBR 15°, Nr. 3 = RFBL 15°
- Fischhauträndel GE 30°
  Nm. 1, 2 + 3 = RFAA 0°
- Längsrändel (nicht empfohlen)
  Nm. 1 + 2 = RFBL 30°, Nr. 3 = RFBR 30°

Rändelrollen siehe Seiten 16 – 18.
Auftretende Rändelfräsprobleme und deren Lösung siehe Seite 11.

Bestell-Nr.: entsprechenden Haltertyp und Ident.-Nr. zusammenfügen, z.B. RRTN-1036

- Déplacer les pivots obliques dans leurs coulisses de guidage jusqu'à ce que les molettes s'appuyent sur la partie usinée.
- Serrer les vis.
- Valeurs de coupe (V+s) en page 9.

Disposition des molettes
- Moletage croisé GE 45°
  N°s 1 + 2 = RFBR 15°, n° 3 = RFBL 15°
- Moletage en losange GE 30°
  N°s 1, 2 + 3 = RFAA 0°
- Moletage longitudinal (pas recommandé)
  N°s 1+ 2 = RFBL 30°, n° 3 = RFBR 30°

Molettes en pages 16-18.
Problèmes de moletage par fraisage et leurs solutions en page 11.

N° de commande: joindre au type de porte-molette le numéro d'identification à la référence, par exemple: RRTN-1036

- With the rolls close to the machined section adjust the posts to bring the rolls in a complete alignment over their width.
- Tighten screws.
- Cutting data (V+s) see page 9.

Set-up of knurling rolls
- Cross knurl GE 45°
  Nos 1 + 2 = RFBR 15°, No. 3 = RFBL 15°
- Diamond knurl GE 30°
  Nos 1, 2 + 3 = RFAA 0°
- Longitudinal knurling (not recommended)
  Nos 1+ 2 = RFBL 30°, No. 3 = RFBR 30°

Knurling rolls on pages 16 – 18.
Trouble-shooting guide when knurling by cutting on page 11.

Order number: Add ident. No. to type of knurling roll holder, e.g.: RRTN-1036

Lieferbedingungen

Bestellungsunterlagen
Unsere Fabrikate sind stets den neuesten Werkstatterfahrungen angepasst. Die Abbildungen und Abmessungen im Katalog sind daher nicht streng verbindlich.

Lieferzeit
Normale Werkzeuge nach Katalog können in der Regel sofort ab Lager geliefert werden. Versprochene Liefertermine werden nach bester Möglichkeit eingehalten. Irgendwelche Entschädigungsansprüche bei Überschreitung werden ausdrücklich abgelehnt.

Preise
Die in dieser Liste aufgeführten Preise in CHF, zuzüglich allfälligen Teuerungszuschlags, verstehen sich für Lieferungen ab Werk Uster, unverpackt, exkl. Mehrwertsteuer. Bei Bestellungen im Warenwert von weniger als CHF 50.– fallen allfällige Rabatte weg. Mindestfakturabetrag CHF 15.– plus Versandspesen.

Versand
Erfolgt auf Rechnung und Gefahr des Bestellers. In Ermangelung besonderer Versandvorschriften bleibt die Wahl der Spedition uns überlassen.

Versandspesen
Werden nach Aufwand belastet.

Zahlung
Innert 30 Tagen ab Fakturadatum, rein netto, ohne Skontoabzug.

Garantie
Wir garantieren für exakte, leistungsfähige und solide Ausführung der Werkzeuge. Für nachweisbar fehlerhafte, mit Material-, Fabrikations- oder Härtemängeln behaftete Stücke leisten wir kostenlosen Ersatz. Für Schäden, die durch natürliche Abnützung, fehlerhafte Behandlung oder übermässige Beanspruchung des Werkzeuges entstehen, übernehmen wir keine Ersatzpflicht. Weitergehende Ansprüche für allfällige Folgeschäden aufgrund fehlerhafter Werkzeuge werden nicht anerkannt.

Eigentumsvorbehalt
Die gelieferte Ware bleibt bis zur vollständigen Bezahlung Eigentum der Ifanger AG.

Gerichtsstand
Uster (Schweiz).

Preisänderungen vorbehalten

Conditions de livraison

Documents de commande
Nos produits sont continuellement adaptés aux plus récentes expériences d'atelier. Les illustrations et dimensions figurant dans le catalogue ne nous engagent donc pas strictement.

Délai de livraison
En règle générale, les outils normaux suivant catalogue sont livrables immédiatement du stock. Les délais de livraison convenus sont observés dans toute la mesure du possible. Par contre, toute demande de dommages-intérêts pour dépassement de ces délais sera formellement déclinée.

Prix
Les prix en CHF indiqués dans ce tarif, plus hausse éventuelle, s'entendent pour livraison départ usine Uster, marchandise non emballée, TVA non comprise. Pour des commandes d'une valeur inférieure à CHF 50.– aucun rabais n'est accordé. Valeur minimale de facture: CHF 15.– plus frais de port et d'emballage.

L'expédition
A lieu aux risques et périls du client. Sauf prescriptions spéciales nous nous réservons le choix du mode d'expédition.

Les frais de transport et d'emballage
Sont facturés selon dépenses.

Paiement
A effectuer dans les 30 jours à date de la facture, net, sans escompte.

Garantie
Nous garantissons l'exécution précise, la solidité et la capacité de travail de nos outils. Nous remplaçons sans frais les pièces inutilisables du fait d'un défaut de matière, de fabrication ou de trempe pouvant être prouvé. Nous n'assumons aucune obligation de remplacement en cas de dommages résultant de l'usure normale, d'un traitement incorrect ou d'une sollicitation excessive des outils. Toutes réclamations au-delà, particulièrement pour des dégâts prétendus être à la suite d'un outil défectueux, seront formellement déclinés.

Réservé de propriété
La marchandise livrée reste jusqu'à son paiement complet propriété de Ifanger AG.

Domicile du tribunal
Uster (Suisse).

Changements de prix sous réserve

Terms of delivery

Basis of order
Our manufactures are always up-to-date, in accordance with the most recent workshop experience. The illustrations and dimensions given in the catalogue are, therefore, not strictly binding.

Time of delivery
Normal tools according to catalogue can, as a rule, be delivered promptly from stock. Promised times of delivery will be observed as far as possible. However, any claims for compensation because of late delivery will not be recognized.

Prices
The prices in CHF quoted in this price list, together with any increasement, are for goods unpacked ex works, sales tax excluded. For orders of a value of less than CHF 50 no discount can be granted. Minimum value of invoice: CHF 15 plus packing and shipping costs.

Dispatch
Is effected at purchaser's risk. If no special instructions are given for dispatching, we are free to choose the manner of forwarding.

Packing and shipping costs
Are invoiced in accordance with corresponding expense.

Terms of payment
Invoices are to be settled without any deduction within 30 days from their date of issue.

Guarantee
We guarantee that our tools are accurate, efficient and of robust construction. Any parts that are evidently faulty, possessing defects in material or hardening, will be replaced free of charge. For damages due to natural wear, faulty handling or undue stressing of the tool no claims for replacement will be accepted. Any claims for compensation of damages said to be due to faulty tools will be rejected.

Retention of title
The goods remain our property until receipt of the fully payment by us.

Place of jurisdiction
Uster (Switzerland).

Prices subject to change

HAROLD HABEGGER

INFORMATION GENERALE / *ALLGEMEINE INFORMATION* / GENERAL INFORMATION

FILIERES A ROULER LES FILETS

Filières à rouler, réglables

- Ces filières sont utilisées de préférence sur des machines CNC, avec nos porte-filières à compensation.
- Le diamètre sur le flanc du filet se règle au moyen de l'écrou du porte-filière.
- Le diamètre extérieur se règle en modifiant le diamètre de tournage.
- L'utilisation de ces filières est très économique, en raison de la possibilité de réglage. En refermant les filières, l'usure est compensée.
- Nous livrons des rouleaux en pièces de rechange pour ce type de filière. Ceux-ci peuvent être changée par l'utilisateur.

Filières à rouler, non réglables

- Ces filières sont utilisées de préférence pour la production de petites vis (vis d'horlogerie, de lunetterie, etc.).
- Indiquer la matière et la tolérance lors de la commande.
- Le diamètre extérieur se règle en modifiant le diamètre de tournage.
- Nous ne livrons pas de pièces de rechange.

Diamètre de tournage avant roulage

- Il correspond au diamètre sur flanc moins quelques centièmes. Le réglage final se fait en fonction du profil obtenu selon le croquis ci-dessous:

GEWINDEROLLEISEN

Gewinderolleisen, verstellbar

- *Diese Gewinderolleisen werden vorzüglich auf CNC Maschinen zusammen mit unseren ausgleichenden Rolleisenhaltern verwendet.*
- *Der Durchmesser auf der Gewindeflanke wird mit der Mutter geregelt.*
- *Der Aussendurchmesser regelt sich durch Änderung des Drehdurchmessers.*
- *Die Verwendung dieser Gewinderolleisen ist sehr kostengünstig, da man sie einstellen kann. Beim Schliessen der Rolleisen wird der Verschleiss ausgeglichen.*
- *Wir liefern die Rollen für diese Art von Rolleisen als Ersatzteile. Der Anwender kann sie selber austauschen.*

Gewinderolleisen, nicht verstellbar

- *Diese Rolleisen werden vorzüglich bei der Herstellung von Kleinschrauben verwendet (Schrauben für die Uhrenindustrie, für Brillen, u.s.w.).*
- *Toleranz und Werkstoff bei der Bestellung angeben.*
- *Der Aussendurchmesser regelt sich durch Änderung des Drehdurchmessers.*
- *Wir liefern keine Ersatzteile.*

Drehdurchmesser vor dem Gewinderollen

- *Dieser Durchmesser entspricht dem Flankendurchmesser weniger einige Hundertstel. Die endgültige Einstellung erfolgt gemäss dem erhaltenen Profil, laut Skizze:*

THREAD ROLLING DIES

Thread rolling dies, adjustable

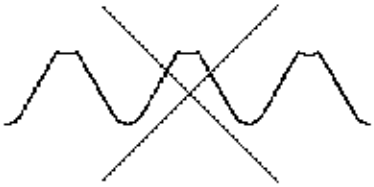
- These rolling dies are preferably used on CNC machines, together with our die holders with compensating system.
- The diameter on the thread flank is adjusted by means of the die holder nut.
- The outside diameter is adjusted by changing the turning diameter.
- The use of these dies is very economical thanks to the possibility to adjust them. When closing these dies, the wear will be compensated.
- For this kind of dies we supply rollers as spare parts. The user can exchange the rollers himself.

Thread rolling dies, non adjustable

- These dies are preferably chosen for the production of small screws (as screws for the watch industry, for spectacles, etc.).
- Indicate tolerance and material at order.
- The outside diameter is adjusted by changing the turning diameter.
- We do not supply any spare parts.

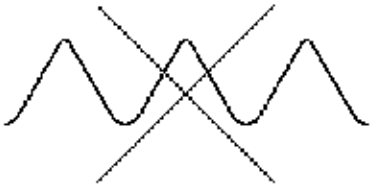
Turning diameter before thread rolling

- The turning diameter corresponds to the diameter on flank, less a few hundredths. The final adjustment is effected according to the obtained profile, as per sketch below:



Ø de tournage trop petit
Vordreh-Ø zu klein
Preturned diameter too small

Ø de tournage idéal
Vordreh-Ø gut
Preturned diameter ok



Ø de tournage trop grand
Vordreh-Ø zu gross
Preturned diameter too large

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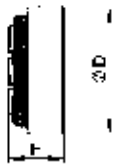
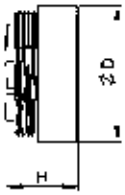
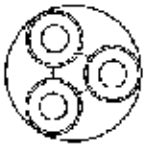
FILIERES A ROULER, REGLABLES
GEWINDEROLLEISEN, VERSTELLBAR
THREAD ROLLING DIES, ADJUSTABLE



Filetage *Gewinde* Thread	Pas *Steigung* Pitch	øD x H	Porte-filières *Rolleisenhalter* Die holders
ISO NIHS			☞ Page/*Seite* 6 - 8
RM 0.60	0.15	8 x 3	R 8
RM 0.70	0.175	8 x 3	R 8
RM 0.80	0.20	8 x 5	R 8
RM 0.90	0.225	8 x 5	R 8
RM 1.00	0.25	10 x 5	R 10
RM 1.10	0.25	10 x 5	R 10
RM 1.20	0.25	10 x 5	R 10
RM 1.30	0.30	10 x 6	R 10
RM 1.40	0.30	10 x 6	R 10
RM 1.50	0.30	10 x 6	R 10
RM 1.60	0.35	14 x 6	R 14
RM 1.70	0.35	14 x 6	R 14
RM 1.80	0.35	14 x 6	R 14
RM 2.00	0.40	14 x 6	R 14
RM 2.20	0.45	16 x 8	R 16
RM 2.50	0.45	16 x 8	R 16
RM 2.80	0.45	16 x 8	R 16
RM 3.00 PM	0.50	16 x 8	R 16
RM 3.00	0.50	25 x 11	R 25
RM 3.50	0.60	25 x 12	R 25
RM 4.00	0.70	25 x 12	R 25
RM 4.50	0.75	25 x 12	R 25
RM 5.00	0.80	27 x 13	R 27
RM 6.00	1.00	32 x 16	R 32
RM 8.00	1.25	35 x 20	R 35
BA			☞ Page/*Seite* 6 - 8
RBA 16		8 x 5	R 8
RBA 14		8 x 5	R 8
RBA 13		10 x 6	R 10
RBA 12		10 x 6	R 10
RBA 11		10 x 6	R 10
RBA 10		14 x 6	R 14
RBA 9		14 x 6	R 14
RBA 8		16 x 8	R 16
RBA 7		16 x 8	R 16
RBA 6		16 x 8	R 16
RBA 5		25 x 11	R 25
RBA 4		25 x 11	R 25
RBA 3		25 x 12	R 25

FILIERES A ROULER, NON REGLABLES
GEWINDEROLLEISEN, NICHT VERSTELLBAR
THREAD ROLLING DIES, NON ADJUSTABLE





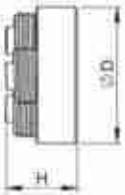
Filetage *Gewinde* Thread	Pas *Steigung* Pitch	øD x H	Porte-filières *Rolleisenhalter* Die holders
ISO NIHS			☞ Page/*Seite* 9
M 0.30	0.08	6 x 2	N 6
M 0.35	0.09	6 x 2	N 6
M 0.40	0.10	6 x 2	N 6
M 0.50	0.125	6 x 3	N 6
M 0.60	0.15	6 x 3	N 6
M 0.70	0.175	6 x 3	N 6
M 0.80	0.20	8 x 5	N 8
M 0.90	0.225	8 x 5	N 8
M 1.00	0.25	8 x 5	N 8
M 1.10	0.25	8 x 5	N 8
M 1.20	0.25	8 x 5	N 8
M 1.30	0.30	8/10 x 6	N 8
M 1.40	0.30	8/10 x 6	N 8
M 1.50	0.30	8/10 x 6	N 8
M 1.60	0.35	12 x 6	N 12
M 1.70	0.35	12 x 6	N 12
M 1.80	0.35	12 x 6	N 12
M 2.00	0.40	12 x 6	N 12
M 2.20	0.45	12/16 x 8	N 12
M 2.50	0.45	12/16 x 8	N 12
M 2.60	0.45	12/16 x 8	N 12
M 3.00 PM	0.50	12/16 x 8	N 12
M 3.00	0.50	22 x 11	F 8
M 3.50	0.60	22 x 11	F 8
M 4.00	0.70	22 x 11	F 8
M 5.00	0.80	25 x 13	F 8
M 6.00	1.00	30 x 16	V 10 / F 10
BA			☞ Page/*Seite* 9
BA 14		8 x 5	N 8
BA 13		8 x 5	N 8
BA 12		8/10 x 6	N 8
BA 11		8/10 x 6	N 8
BA 10		12 x 6	N 12
BA 9		12 x 6	N 12
BA 7		12/16 x 8	N 12
BA 6		12/16 x 8	N 12

HAROLD HABEGGER

FILIERES A ROULER, REGLABLES
GEWINDEROLLEISEN, VERSTELLBAR
THREAD ROLLING DIES, ADJUSTABLE

Filetage *Gewinde* Thread	øD x H	Porte-filières *Rolleisenhalter* Die holders
UN		☞ Page/*Seite* 6 - 8
RUN 000-120	10 x 5	R 10
RUN 00-90	10 x 6	R 10
RUN 00-96	10 x 5	R 10
RUN 0-80	10 x 6	R 10
RUN 1-64	14 x 6	R 14
RUN 1-72	14 x 6	R 14
RUN 2-56	16 x 8	R 16
RUN 2-64	14 x 6	R 14
RUN 3-48	25 x 11	R 25
RUN 3-56	16 x 8	R 16
RUN 4-40	25 x 11	R 25
RUN 4-48	25 x 11	R 25
RUN 5-40	25 x 11	R 25
RUN 5-44	25 x 11	R 25
RUN 6-32	25 x 12	R 25
RUN 6-40	25 x 12	R 25
RUN 8-32	25 x 12	R 25
RUN 8-36	25 x 12	R 25
RUN 10-24	32 x 16	R 32
RUN 10-32	25 x 12	R 25
RUN 12-24	32 x 16	R 32
RUN 12-28	32 x 16	R 32
RUN 12-32	27 x 13	R 27
RUN 1/4"-28	32 x 16	R 32
RUN 1/4"-32	27 x 13	R 27
RUN 5/16"-24	35 x 16	R 35
RUN 5/16"-32	32 x 13	R 32
RUN 3/8"-24	35 x 16	R 35
RUN 3/8"-32	32 x 13	R 32
RUN 7/16"-32	32 x 13	R 32
RUN 9/16"-32	35 x 13	R 35

FILIERES A ROULER, NON REGLABLES
GEWINDEROLLEISEN, NICHT VERSTELLBAR
THREAD ROLLING DIES, NON ADJUSTABLE



Filetage *Gewinde* Thread	øD x H	Porte-filières *Rolleisenhalter* Die holders
UN		☞ Page/*Seite* 9
UN 000-120	8 x 5	N 8
UN 00-90	8/10 x 6	N 8
UN 00-96	8 x 5	N 8
UN 0-80	8/10 x 6	N 8
UN 1-64	12 x 6	N 12
UN 1-72	12 x 6	N 12
UN 2-56	12/16 x 8	N 12
UN 2-64	12 x 6	N 12
UN 3-48	22 x 11	F 8
UN 3-56	12/16 x 8	N 12
UN 4-40	22 x 11	F 8
UN 4-48	22 x 11	F 8
UN 5-44	22 x 11	F 8
UN 6-32	22 x 12	F 8
UN 6-40	22 x 11	F 8
UN 8-32	22 x 12	F 8
UN 10-32	22 x 12	F 8

- **Sur demande : profils spéciaux, profils J et pivots dégagés laissant passer la tête de vis.**
  Auf Anfrage : Spezialprofile, Profil J und Ausführung mit ausgeweiteten Bolzen um den Schraubenkopf durchlaufen zu lassen.
  On customer's request: special profiles, profiles J and cleared-off pivots to let the screw head pass through.

- Choix important d'autres filières à rouler dans les capacités suivantes :
  Ø de filetage : 0.30 à 14.00 mm - Pas : 0.08 à 1.25 mm / 120 TPI à 20 TPI.
  Grosse Liefermöglichkeiten anderer Gewinderolleisen in folgenden Fertigungsgrössen :
  Ø des Gewindes : 0.30 bis 14.00 mm - Steigung : 0.08 bis 1.25 mm / 120 TPI bis 20 TPI.
  Important choice of other thread rolling dies with the following capacities :
  Thread dia. : 0.30 to 14.00 mm - Pitch : 0.08 to 1.25 mm /120 TPI to 20 TPI.

- En principe, toutes les filières à rouler sont disponibles avec pas à gauche (type « L »).
  Grundsätzlich sind alle Gewinderolleisen ebenfalls mit Linksgewinde verfügbar (Typ « L »).
  Usually, all the rolling dies are available for L.H. threading (type « L »).

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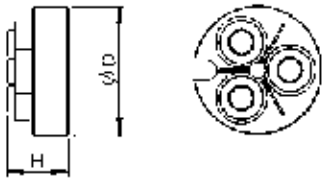
FILIERES A GALETER, REGLABLES
GLATTWALZEISEN, VERSTELLBAR
BURNISHING DIES, ADJUSTABLE



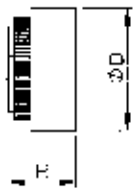
Ø après galetage *Ø nach dem Glätten* Dia. after burnishing		øD x H	Porte-filières *Rolleisenhalter* Die holders
			☞ Page/*Seite* 6
RFG 0.30 →	RFG 1.70	8 x 5	R 8
RFG 1.40 →	RFG 3.80	16 x 9	R 16
RFG 3.00 →	RFG 5.50	25 x 13	R 25
RFG 5.60 →	RFG 7.30	27 x 13	R 27
RFG 7.40 →	RFG 12.40	32 x 13	R 32

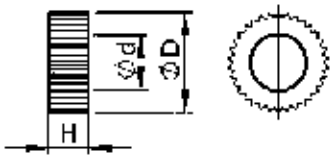
- Les dimensions des filières à galeter sont disponibles par dixième, mais uniquement pour le diamètre indiqué sur la filière.
  Die Grössen der Glattwalzeisen sind per Zehntel verfügbar, aber einzig nur für den Durchmesser, der auf dem Rolleisen steht.
  The sizes of the burnishing dies are available per tenths of a millimetre, but each serves only for the diameter indicated on the die.

- L'opération de galetage améliore l'état de surface mais ne corrige pas le diamètre.
  Das Glattwalzverfahren verbessert die Oberflächengüte, berichtigt aber den Durchmesser nicht.
  The burnishing operation improves the surface finish, but does not influence the diameter.

FILIERES A MOLETER EN BOUT, REGLABLES
VORDERE END-RÄNDEL, VERSTELLBAR
FRONT END KNURLING DIES, ADJUSTABLE

(DIN 82)





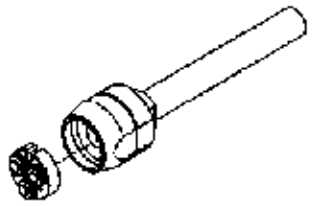
Ø après moletage *Ø nach Randieren* Dia. after knurling	Pas *Teilung* Pitch	øD x H	Porte-filières *Rolleisenhalter* Die holders	Molettes *Rändelräder* Knurls øD x H x d
RAA RBL RBR RGE			☞ Page/*Seite* 6	☞ Page/*Seite* 11
FM 0.60 → FM 1.90	0.13	8 x 5	R 8	3 x 1.15 x 1.64 (AA)
FM 0.60 → FM 1.90	0.15	8 x 5	R 8	3 x 1.15 x 1.64 (C30°)
FM 0.80 → FM 1.70	0.26	8 x 5	R 8	3 x 1.15 x 1.64 (AA)
FM 1.10 → FM 2.00	0.20/0.25/0.30	14 x 8	R 14	5 x 2.00 x 2.50 (AA)
FM 1.50 → FM 3.90	0.20 → 0.60	16 x 9	R 16	6 x 2.50 x 3.00
FM 2.90 → FM 5.20	0.20 → 1.20	25 (27) x 13	R 25 (R 27)	10 x 4.00 x 4.00
FM 4.30 → FM 7.00	0.20 → 1.20	(25) 27 (32) x 13	(R 25) R 27 (R 32)	10 x 4.00 x 4.00
FM 6.10 → FM 12.10	0.20 → 1.20	(27) 32 (35) x 13	(R 27) R 32 (R 35)	10 x 4.00 x 4.00
FM 11.20 → FM 14.10	0.20 → 1.20	(32) 35 x 13	(R 32) R 35	10 x 4.00 x 4.00

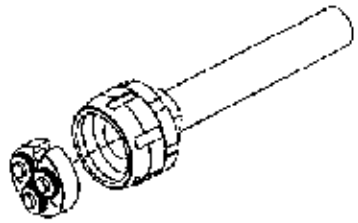
- Les dimensions des filières à moleter sont disponibles par dixième, mais uniquement pour le diamètre indiqué sur la filière.
  Die Grössen der End-Rändel sind per Zehntel verfügbar, aber einzig nur für den Durchmesser, der auf dem End-Rändel steht.
  The sizes of the knurling dies are available per tenths of a millimetre, but each serves only for the diameter indicated on the die.

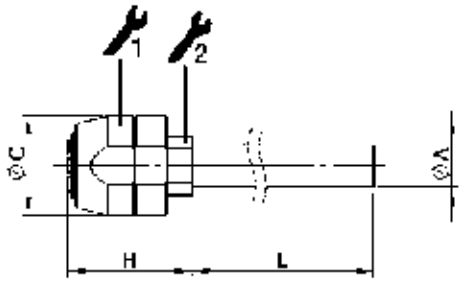
- Autres dimensions sur demande.
  Sonderabmessungen auf Anfrage.
  Other dimensions on request.

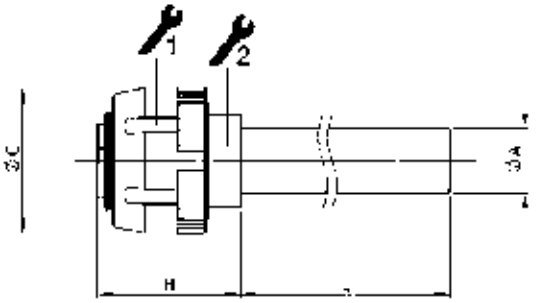
HAROLD HABEGGER

PORTE-FILIERES, REGLABLES
ROLLEISENHALTER, VERSTELLBAR
DIE HOLDERS, ADJUSTABLE







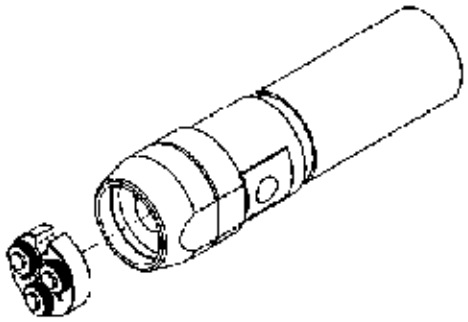


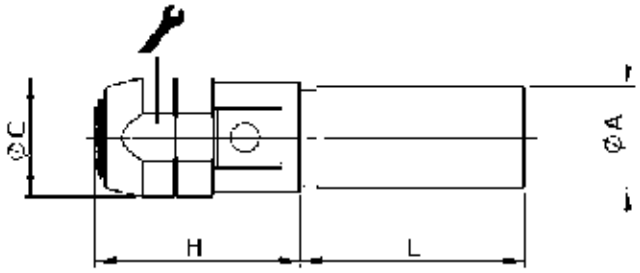
Type - øA	L	øC	1	2	H (max)
R 8 - 3	55	13	11	5.50	21
R 8 - 5	55	13	11	5.50	21
R 8 - 7	55	13	11	5.50	21
R 8 - 8	55	13	11	5.50	21
R 10 - 3	55	15	13	9	22
R 10 - 5	55	15	13	9	22
R 10 - 6	55	15	13	9	22
R 10 - 7	55	15	13	9	22
R 10 - 8	55	15	13	9	22
R 12 - 3	55	16.5	15	9	22
R 12 - 5	55	16.5	15	9	22
R 12 - 7	55	16.5	15	9	22
R 12 - 8	55	16.5	15	9	22
R 14 - 3	55	19	17	9	22
R 14 - 5	55	19	17	9	22
R 14 - 7	55	19	17	9	22
R 14 - 8	55	19	17	9	22
R 16 - 3	55	22	19	13	24
R 16 - 4	55	22	19	13	24
R 16 - 5	55	22	19	13	24
R 16 - 6	55	22	19	13	24
R 16 - 7	55	22	19	13	24
R 16 - 8	55	22	19	13	24
R 19 - 5	55	26	22	15	28
R 19 - 8	55	26	22	15	28

Type - øA	L	øC	1	2	H (max)
R 25 - 5	55	32	6025	17	32
R 25 - 6	55	32	6025	17	32
R 25 - 7	55	32	6025	17	32
R 25 - 8	80	32	6025	17	32
R 25 - 10	80	32	6025	17	32
R 25 - 14	80	32	6025	17	32
R 27 - 6	55	35	6027	19	33
R 27 - 7	55	35	6027	19	33
R 27 - 8	80	35	6027	19	33
R 27 - 10	80	35	6027	19	33
R 27 - 12	80	35	6027	19	33
R 27 - 14	80	35	6027	19	33
R 32 - 8	80	40	6032	22	37
R 32 - 10	80	40	6032	22	37
R 32 - 12	80	40	6032	22	37
R 32 - 14	80	40	6032	22	37
R 32 - 16	80	40	6032	22	37
R 35 - 10	80	45	6035	27	42
R 35 - 12	80	45	6035	27	42
R 35 - 14	80	45	6035	27	42
R 40 - 12	80	52	6035	27	45
R 40 - 14	80	52	6035	27	45
R 40 - 16	80	52	6035	27	45
R 40 - 20	80	52	6035	27	45

PORTE-FILIERES, REGLABLES, AVEC SYSTEME DE COMPENSATION
ROLLEISENHALTER, VERSTELLBAR, MIT AUSGLEICHVORRICHTUNG
DIE HOLDERS, ADJUSTABLE, WITH COMPENSATING SYSTEM

Type - øA	L	øC		H (max)
R 8 - 13	35	13	11	28
R 8 - 5/8"	35	13	11	28
R 8 - 16	35	13	11	28
R 10 - 13	35	15	13	29
R 10 - 5/8"	35	15	13	29
R 10 - 16	35	15	13	29
R 12 - 13	35	16.5	15	22
R 12 - 5/8"	35	16.5	15	22
R 12 - 16	35	16.5	15	22
R 14 - 13	35	19	17	29
R 14 - 5/8"	35	19	17	29
R 14 - 16	35	19	17	29
R 14 - 3/4"	35	19	17	29
R 14 - 20	35	19	17	29
R 14 - 22	35	19	17	29
R 14 - 25	35	19	17	29
R 16 - 13	35	22	19	31
R 16 - 5/8"	35	22	19	31
R 16 - 16	35	22	19	31
R 16 - 3/4"	35	22	19	31
R 16 - 20	35	22	19	31
R 16 - 22	35	22	19	31
R 16 - 25	35	22	19	31
R 19 - 13	35	26	22	28
R 19 - 5/8"	35	26	22	28
R 19 - 16	35	26	22	28
R 19 - 3/4"	35	26	22	28
R 19 - 20	35	26	22	28
R 19 - 22	35	26	22	28
R 19 - 25	35	26	22	28



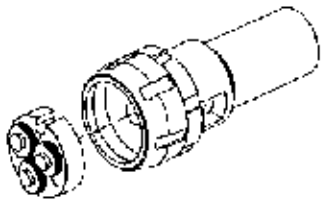


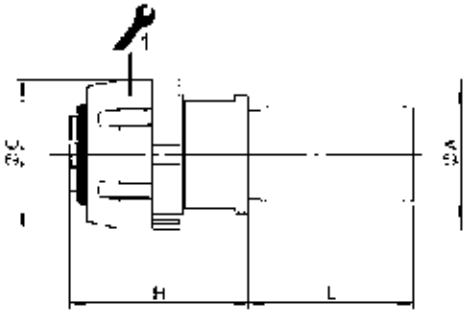
- Les porte-filières avec système de compensation s'emploient sur les machines à poupée fixe et machines CNC.
  Die Rolleisenhalter mit Ausgleichvorrichtung werden auf Maschinen mit festem Spindelstock und auf CNC-Maschinen verwendet.
  The die holders with compensating system are needed on machines with fixed headstock and on CNC machines.

- La fonction « rigid tapping » ne convient pas au roulage de filets.
  Die Funktion „rigid tapping" ist beim Rollen der Gewinde nicht angebracht.
  The function "rigid tapping" is not convenient for thread rolling.

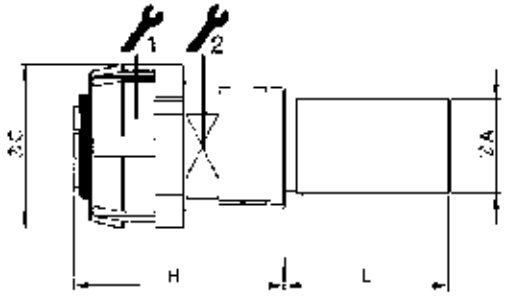
HAROLD HABEGGER

PORTE-FILIERES, REGLABLES, AVEC SYSTEME DE COMPENSATION
ROLLEISENHALTER, VERSTELLBAR, MIT AUSGLEICHVORRICHTUNG
DIE HOLDERS, ADJUSTABLE, WITH COMPENSATING SYSTEM





Type - øA	L	øC	1	H (max)
R 25 - 16	35	32	8025	35
R 25 - 3/4"	35	32	8025	35
R 25 - 20	35	32	8025	35
R 25 - 22	35	32	8025	35
R 25 - 25	35	32	8025	35



Type - øA	L	øC	1	2	H (max)
R 27 - 16	35	35	8027	19	43
R 27 - 3/4"	35	35	8027	19	43
R 27 - 20	35	35	8027	19	43
R 27 - 22	35	35	8027	19	43
R 27 - 25	35	35	8027	19	43
R 32 - 16	35	40	8032	22	47
R 32 - 3/4"	35	40	8032	22	47
R 32 - 20	35	40	8032	22	47
R 32 - 22	35	40	8032	22	47
R 32 - 25	35	40	8032	22	47
R 35 - 16	35	45	8035	27	52
R 35 - 3/4"	35	45	8035	27	52
R 35 - 20	35	45	8035	27	52
R 35 - 22	35	45	8035	27	52
R 35 - 25	35	45	8035	27	52
R 40 - 16	35	52	8035	27	55
R 40 - 3/4"	35	52	8035	27	55
R 40 - 20	35	52	8035	27	55
R 40 - 22	35	52	8035	27	55
R 40 - 25	35	52	8035	27	55

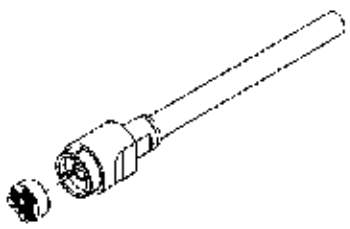
- Les porte-filières avec système de compensation s'emploient sur les machines à poupée fixe et machines CNC.
  Die Rolleisenhalter mit Ausgleichvorrichtung werden auf Maschinen mit festem Spindelstock und auf CNC-Maschinen verwendet.
  The die holders with compensating system are needed on machines with fixed headstock and on CNC machines.

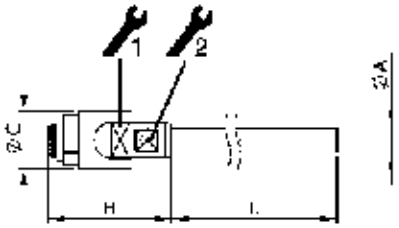
- La fonction « rigid tapping » ne convient pas au roulage de filets.
  Die Funktion „rigid tapping" ist beim Rollen der Gewinde nicht angebracht.
  The function "rigid tapping" is not convenient for thread rolling.

HAROLD HABEGGER

PORTE-FILIERES, NON REGLABLES
ROLLEISENHALTER, NICHT VERSTELLBAR
DIE HOLDERS, NON ADJUSTABLE

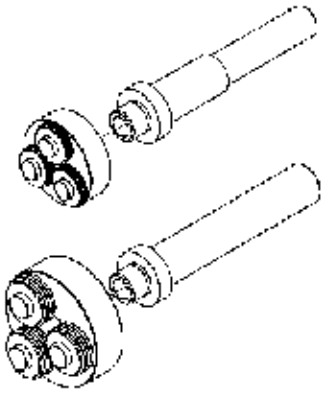
PFN

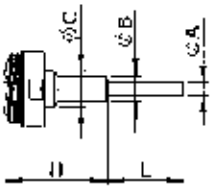




Type - øA	L	øC	H (max)	1	2
N 6 - 3	53	12	24	9	5.50
N 6 - 5	53	12	24	9	5.50
N 8 - 3	53	12	27	9	5.50
N 8 - 5	53	12	27	9	5.50
N 12 - 3	46	14	33	12	7.00
N 12 - 5	46	14	33	12	7.00

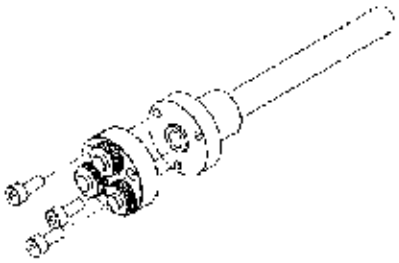
PFF

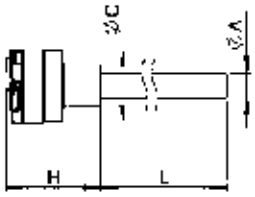




Type - øA	L	øB	øC	H (max)
F 8 - 5	30	10	14	37
F 8 - 6	30	10	14	37
F 8 - 7	30	10	14	37
F 8 - 8	30	10	14	37
F 8 - 10	50	(10)	14	37
F 10 - 8	30	10	16	39
F 10 - 10	50	(10)	16	19
F 11 - 10	50	(10)	18	21

PFV





Type - øA	L	øC	H (max)
V 10 - 8	80	29	39
V 10 - 10	80	29	39
V 10 - 12	80	29	39
V 10 - 14	80	29	39

- Les porte-filières permettent de fixer toutes les filières de notre fabrication sur chaque type de tour automatique.
  Die Rolleisenhalter erlauben alle unsere Rolleisen auf jeden Langdrehautomaten einzusetzen.
  The die holders permit to mount our rolling dies on all types of automatic lathes.

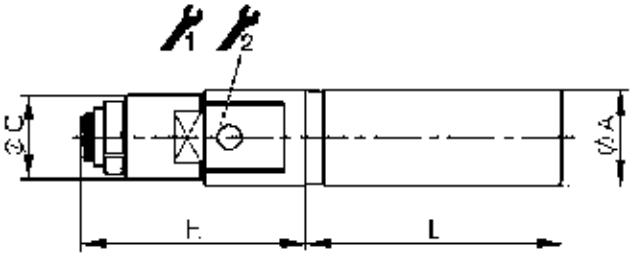
- Le montage sur la machine se fera, suivant le cas, au moyen d'une pince de serrage, ou directement dans le logement de la pince avec un cône de serrage (voir page 21).
  Die Montage erfolgt, je nach dem einzelnen Fall, mit einer Spannzange oder direkt im Gehäuse, mit einem Spannkonus (siehe Seite 21).
  The assembly on the machine will be effected either with a clamping collet or directly into the collet housing with the help of a clamping cone (see page 21).

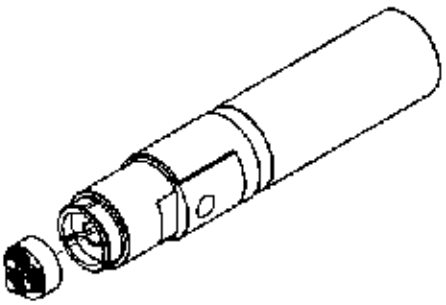
- Le porte-filière type V est utilisé pour les filières M 6.00 x 1.00 DE 30 uniquement.
  Der Rolleisenhalter Typ V wird ausschliesslich für Rolleisen M 6.00 x 1.00 AD 30 verwendet.
  The die holder type V is exclusively used for dies M 6.00 x 1.00 OD 30.

HAROLD HABEGGER

PORTE-FILIERES, NON REGLABLES, AVEC SYSTEME DE COMPENSATION
ROLLEISENHALTER, NICHT VERSTELLBAR, MIT AUSGLEICHVORRICHTUNG
DIE HOLDERS, NON ADJUSTABLE, WITH COMPENSATING SYSTEM

PFNC

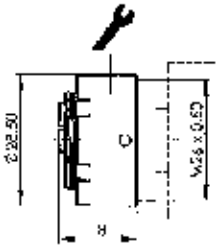




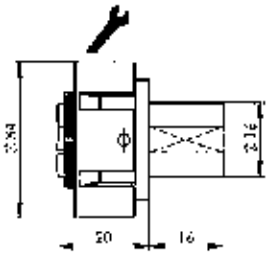
Type - ØA	L	ØC	1	2	H (max)
N 6-13	35	12	9	5.50	31
N 6-5/8"	35	12	9	5.50	31
N 6-16	35	12	9	5.50	31
N 8-13	35	12	9	5.50	32
N 8-5/8"	35	12	9	5.50	32
N 8-16	35	12	9	5.50	32

PORTE-FILIERES POUR MACHINES ESCO
ROLLEISENHALTER FÜR ESCO MASCHINEN
DIE HOLDERS FOR ESCO MACHINES

D6

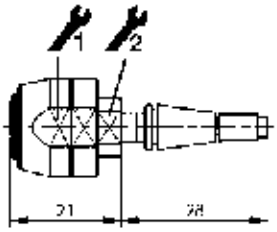


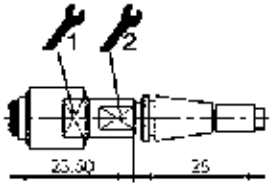
D2 GR43



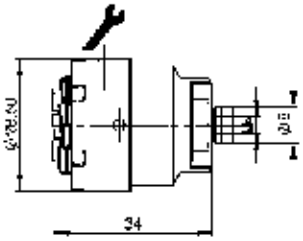
Avec système de compensation
Mit Ausgleichvorrichtung
With compensating system

D5 CNC





D6/NewMac



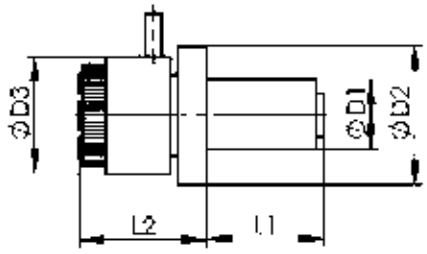
- Documentation spéciale pour ESCO sur demande.
  Spezielle Dokumentierung für ESCO auf Anfrage.
  Special information for ESCO on request.

- Les filières réglables ou non réglables peuvent être montées sur les machines ESCO.
  Die verstellbaren oder nicht verstellbaren Gewinderolleisen können auf ESCO Maschinen montiert werden.
  The adjustable or non adjustable rolling dies can be assembled on ESCO machines.

HAROLD HABEGGER

TETE A MOLETER
RANDRIERKÖPFE
KNURLING HEADS

(DIN 82)

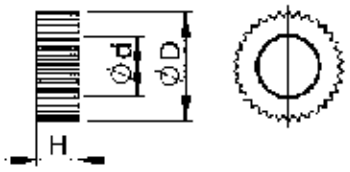


Type	øD1	øD2	øD3	L1	L2	Pour Ø de moletage *Für Randrierung-Ø* For knurling dia.	Ø molettes *Ø Ränderräder* Knurl dia.	pas max. *Max. Teilung* max. pitch	Ø adaptateur *Ø Anpassungstelle* Adapter dia.
MOJ1	8	18	18	11	17	0.80 - 1.80	3 x 1.15 x 1.64	0.26	---
MOJ2 A	10	24	21	14	22	1.10 - 3.00	5 x 2.00 x 2.50	0.25	5 / 6 / 8
MOJ2 B	10	24	21	14	22	1.30 - 2.90	6 x 2.50 x 3.00	0.60	5 / 6 / 8
MOJ3	14	31	30	15	29	2.40 - 4.90	10 x 4.00 x 4.00	0.70	8
MOJ4 B	16	38	38	19	32	3.70 - 6.10	10 x 4.00 x 4.00	0.70	8 / 10
MOJ4 A	16	38	38	19	32	5.80 - 8.00	10 x 4.00 x 4.00	0.70	8 / 10

- Les moletages n'étant pas normalisés, veuillez nous consulter quant au choix du type de tête.
  Da die Randrierungen nicht normalisiert sind, bitten wir Sie, die Wahl des Randrierkopfes mit uns zu besprechen.
  As the knurling sizes are not standard, please consult us as to the choice of the knurling head.

- Moletage au milieu d'une pièce ou derrière une portée.
  Randrieren in der Mitte eines Werkstückes oder hinter einer Schulter.
  Knurling operations in the midst of a workpiece or after a shoulder.

MOLETTES AA, BL/BR 30°, BL/BR 45°, (DIN 403)
RÄNDELRÄDER
KNURLS



HSS øD x H x d	Pas *Teilung* Pitch AA	30°	45°
3 x 1.15 x 1.64	0.13		
3 x 1.15 x 1.64		0.15	
3 x 1.15 x 1.64	0.26		
5 x 2.00 x 2.50	0.20		
5 x 2.00 x 2.50	0.25		
5 x 2.00 x 2.50	0.30		
6 x 2.50 x 3.00	0.20		0.20
6 x 2.50 x 3.00	0.25		
6 x 2.50 x 3.00	0.30	0.30	0.30
6 x 2.50 x 3.00	0.35		
6 x 2.50 x 3.00	0.40	0.40	0.40
6 x 2.50 x 3.00	0.50	0.50	0.50
6 x 2.50 x 3.00	0.60	0.60	0.60

HSS øD x H x d	Pas *Teilung* Pitch AA	30°	45°
10 x 4.00 x 4.00	0.20		
10 x 4.00 x 4.00	0.30	0.30	0.30
10 x 4.00 x 4.00	0.40	0.40	0.40
10 x 4.00 x 4.00	0.50	0.50	0.50
10 x 4.00 x 4.00	0.60	0.60	0.60
10 x 4.00 x 4.00	0.70	0.70	0.70
10 x 4.00 x 4.00	0.80	0.80	0.80
10 x 4.00 x 4.00	0.90		
10 x 4.00 x 4.00	1.00	1.00	1.00
10 x 4.00 x 4.00	1.20		1.20

CANONS DE GUIDAGE

Principaux avantages

- Ils sont particulièrement appréciés lors de l'usinage de matières grippant facilement, telles que les aciers inoxydables, le nickel, etc. ainsi que lors du moletage ou de toute opération causant une forte pression radiale.
- **Fonctionnement performant avec de l'huile sans chlore.**
- Vitesse de rotation élevée (pas limitée par le canon).
- Capacité maximum de la longueur de tournage.

Montage : voir page 18-20

Réglage

- Réglage du jeu de la barre: comme un canon conventionnel, c'est-à-dire par action sur l'écrou se trouvant à l'arrière du canon.
- Eviter que la barre soit polie par un canon trop serré.

Lubrification

- Le système de lubrification avec filtre empêche la pénétration d'impuretés à l'intérieur du canon et prévient l'usure prématurée de ce dernier.
- Aucune garantie n'est assurée sur les canons qui sont utilisés sans le système de lubrification muni du filtre.

Kits de rechange

- Les canons de guidage sont répartis en 8 familles différentes identifiables selon le diamètre extérieur de la douille. Pour chacune de ces familles, il est possible de couvrir des plages de diamètre maximum en changeant les pièces intérieures. Des kits sont prévus à cet effet.

FÜHRUNGSBÜCHSEN

Wichtigste Vorteile

- *Sie werden besonders bevorzugt, wenn Material, welches sonst gerne einklemmt, bearbeitet wird, wie zum Beispiel rostfreier Stahl, Nickel, usw., beim Randrieren oder bei jeglicher Arbeit die einen starken Radialdruck verursacht.*
- ***Leistungsstarker Betrieb mit Öl ohne Chlor.***
- *Hohe Drehgeschwindigkeit (keine Begrenzung durch die Führungsbüchse).*
- *Maximale Drehlänge.*

Montage : siehe Seite 18-20

Einstellung

- *Die Einstellung des Spiels der Materialstange erfolgt wie für eine übliche Führungsbüchse, d.h. durch Wirken auf die Mutter, hinten auf der Büchse.*
- *Das Polieren der Materialstange durch eine zu fest gespannte Büchse vermeiden!*

Schmierung

- *Das Schmiersystem mit Filter verhindert das Eindringen von Spänen oder anderen Unreinlichkeiten in die Führungsbüchse und erhöht somit ihre Lebensdauer.*
- *Bei Gebrauch von Führungsbüchsen ohne Schmiersystem und ohne Filter wird keine Garantie gewährt.*

Auswechsel-Kits (Umbausätze)

- *Die Führungsbüchsen sind in 8 verschiedene Familien verteilt. Man erkennt sie nach dem Aussen-Durchmesser der Hülse. Für jede dieser Familien kann man ein Maximum von Durchmesser-Reihen abdecken, wenn man die inneren Teile auswechselt. Kits wurden zu diesem Zwecke vorgesehen.*

GUIDE BUSHES

Main advantages

- They are particularly recommended for tough materials, which would easily seize, like stainless steel, nickel, etc.; or when knurling or any other operations causing a high radial effort on the bar are effected.
- **High performance with oil without chlorine.**
- High rotation speed (not limited by the bush).
- Maximum turning length.

Assembly : refer to page 18-20

Adjustment

- The adjustment of the bar clearance is effected as for a conventional guide bush, i.e. by acting on the nut at the back of the bush.
- Avoid polishing the material bar by a guide bush which is too tight.

Lubrication

- The lubrication system with filter prevents swarf from entering into the interior of the guide bush causing premature wear of the carbide rollers.
- Guide bushes which are used without filtered lubrication will not be subject to the manufacturer's guarantee.

Exchange kits

- The guide bushes are divided in 8 different families which can be identified according to the outside diameter of the sleeve. For each of these families, it is possible to suit a maximum of diameter ranges, by exchanging the inside parts. Kits are foreseen for this purpose.

ARGUMENTS EN FAVEUR DU CANON DE GUIDAGE A GALETS

- Vu son contact direct avec la matière, il **évite tout problème de mal-rond** lié aux canons tournants. La concentricité entre le diamètre de matière et le tournage extérieur et intérieur est garantie.
- Il **supprime les grippages axiaux** lors de grands enlèvements de copeaux ainsi que lors de filetages par peignage.

  Il **est précontraint**, grâce à son système de réglage. Ce n'est pas le cas de la pince du canon tournant. Lors d'efforts radiaux, la pince n'étant pas précontrainte, elle peut s'ouvrir légèrement (jeu du filet et élasticité de la matière de la pince).
- **Il travaille sans problème avec l'émulsion.** Plus de 50% des utilisateurs de canons à galets travaillent avec de l'émulsion et cette proportion est en constante augmentation.
- Il **n'est pas limité en vitesse de rotation** sur les machines du marché actuel, ceci étant dû au fait que le diamètre de rotation des galets est inférieur au diamètre des roulements des canons tournants.
- Il permet, en le serrant un peu plus que normal, de corriger légèrement une mauvaise géométrie des matières malléables telles que le titane, l'aluminium, etc. Il a pour action le galetage de la matière brute. **Le canon à galets peut être déplacé dans l'axe de la matière, ce qui permet de l'approcher ou de l'éloigner des outils**, ceci contrairement au canon tournant dont la position axiale est fixe.

ARGUMENTE ZU GUNSTEN DER FÜHRUNGSBÜCHSE MIT ROLLEN

- ***Sie vermeidet das Problem der unrunden Bearbeitung,*** *die öfters im Zusammenhang mit den drehenden Führungsbüchsen steht. Die Konzentrizität zwischen Material-Durchmesser und dem Aussen- und Innen-Durchmesser des Werkstückes ist garantiert.*
- ***Sie vermeidet das axiale Festsitzen*** *wenn man mit grossen Spänen arbeitet oder wenn man das Gewinde strählt.*
- ***Sie ist vorgespannt,*** *dank deren Einstellungs-System. Dies ist für die Zange der drehenden Führungsbüchse nicht der Fall. Bei seitlichem Druck kann sich die nicht vorgespannte Zange leicht öffnen (Spiel des Gewindes, Elastizität des Werkstoffes der Zange).*
- ***Sie kennt keine Probleme mit Emulsionen.*** *Über 50% der Anwender dieser Büchsen verwenden Emulsionen. Der Prozentsatz ist noch steigend.*
- ***Sie läuft mit unbeschränkter Geschwindigkeit*** *auf den heutigen Maschinen. Der Grund dafür liegt im Durchmesser der Rollen, deren Drehdurchmesser kleiner ist als der Durchmesser der Kugellager drehender Führungsbüchsen.*
- *Sie erlaubt durch etwas mehr Spannung als üblich, die Geometrie von weichem Material, wie Titan, Aluminium, u.s.w. zu korrigieren. Es erfolgt ein Glattwalzen des Rohstoffes.* ***Die Führungsbüchse kann axial auf der Materialstange versetzt werden, was erlaubt, sie näher zu den Werkzeugen oder aber auch weiter weg von den Werkzeugen anzusetzen.*** *Dies ist bei der drehenden Büchse nicht möglich, weil deren axiale Position fest ist.*

ARGUMENTS IN FAVOUR OF THE GUIDE BUSH WITH ROLLERS

- It **permits to avoid any problem of unrueness in** connection with usual revolving bushes, because of its direct contact with the material. The concentricity between material diameter and outside/inside turning diameters of the workpiece is warranted.
- It **avoids any axial seizing-up** when cutting large chips or when chasing a thread.
- It **is preloaded** by its setting system. This, however, is not the case for the collet of a revolving bush. By radial efforts, the collet with no preload may open a bit (clearance of the thread, elasticity of the collet material).
- It **makes no problem with the emulsions.** More than 50% of the users run the machines with emulsion. The proportion increases still.
- It **has no rotation speed limits** on the present machines on the market. This is related to the fact that the rotation diameter of the rollers is smaller than the ball-bearing diameter of usual revolving bushes.
- It permits to correct slightly the geometry of smooth materials, like Titan, Aluminium, etc. by clamping it a little more than usual. The action will result in «rolling» the raw material. **The guide bush can be moved on the material axis, so that it can be brought nearer to the tools or moved a little away from them.** This, however, cannot be done with the revolving bush, as its axial position is fixed.

HAROLD HABEGGER

ARGUMENTS EN FAVEUR DU CANON DE GUIDAGE A GALETS "C"

- Il offre l'avantage d'être très court, environ la moitié de la longueur actuelle des canons de type "D", ce qui permet de **réduire la chute de manière conséquente.**
- Il est **réglable par l'avant,** ce qui évite à l'utilisateur des contorsions dues aux espaces restreints des machines CNC.
- Il permet **d'évacuer les chutes par l'avant** entre la poupée et le canon, ce qui évite des temps improductifs lors du changement de barres.

ARGUMENTE ZU GUNSTEN DER FÜHRUNGSBÜCHSE MIT ROLLEN "C"

- *Sie bietet den Vorteil sehr kurz zu sein, d.h. sie misst ca. die Hälfte der Büchsen Typ "D". Somit erlaubt sie* ***die Reststücke der Material-Stangen zu verkürzen und Material zu sparen.***
- *Sie wird* ***von vorne eingestellt.*** *Der Anwender hat einen leichteren Zugriff im engen Arbeitsraum der CNC-Maschinen.*
- *Sie erlaubt* ***die Reststücke nach vorne auszuwerfen,*** *zwischen Spindelstock und Büchse. Beim Laden der Stangen vermeidet sie somit unproduktive Zeiten.*

ARGUMENTS IN FAVOUR OF THE GUIDE BUSH WITH ROLLERS "C"

- It has the advantage of being very short. It has about the half of the length of the bushes type "D". **Thus the end piece of the material bar can be reduced in consequence.**
- It is **adjusted from the front side.** This gives the user a better access when the space on CNC machines is restricted.
- It permits **to evacuate the bar ends through the front,** between the head-stock and the bush. Dead times will be avoided at changing the material bars.

- **Nous sommes conscients que le canon à galets ne peut pas résoudre toutes les demandes mais les remarques ci-dessus devraient être prises en considération lors du choix d'un système de canon le plus économique.**
  Bestimmt kann die Führungsbüchse mit Rollen nicht alle Probleme lösen. Jedoch sollten die obenstehenden Bemerkungen in Betracht gezogen werden, weil sie dem Anwender ermöglichen, eine wirtschaftliche Wahl seines Führungsbüchsen-Systems zu treffen.
  Of course, the guide bush with rollers will not solve all your problems, but the notes above should be considered when you want to select a guide bush system. The guide bush with rollers will offer an economical solution in many cases.

- **Le montage sur la machine se fait comme pour un canon conventionnel. Nous proposons un grand choix de porte-canons et de douilles de réduction (voir pages 18-20).**
  Die Montage auf die Maschine erfolgt wie für eine übliche Führungsbüchse. Wir bieten eine grosse Auswahl von Büchsenhaltern und Reduktionshülsen an (siehe Seite 18-20).
  Assembly on the machine is effected like you do for a conventional guide bush. We offer a great choice of bush holders and reduction sleeves (see page 18-20).

- **Les types de canons sont à choisir en fonction des machines ou des porte-canons (voir page 18-20).**
  Die verschiedenen Typen von Führungsbüchsen müssen je nach Maschinen oder Büchsenhaltern gewählt werden (siehe Seite 18-20).
  The different types of guide bushes must be selected according to the machines or bush holders used (see page 18-20).

- **Le canon ne doit être utilisé que pour des barres du diamètre correspondant à la dimension indiquée sur le couvercle.**
  Die Führungsbüchse darf nur für Materialstangen des Durchmessers, der auf dem Deckel verzeichnet ist, verwendet werden.
  The guide bush can only be used for bars of the diameter which corresponds to the size indicated on the cap.

HAROLD HABEGGER

CANON 3 POSITIONS

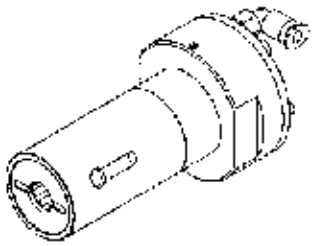
- Canon non-tournant avec galets en métal dur, en contact direct avec la barre à usiner. Réglage effectué par un vérin pneumatique permettant d'ajuster le réglage du canon.
- 3 positions: travail - serrage – ouverte.
- Avant l'usinage de chaque pièce, le canon s'ajuste à la tolérance précise (max. h11) de la barre, à l'endroit où la pièce sera usinée.
- Montage réalisable à l'aide de porte-canons de notre fabrication sur la plupart des machines CNC (voir page 18).
- Lors d'un micro-fraisage ou d'un quelconque autre usinage radial, la fonction de serrage du canon permet de maintenir la barre de manière rigide et éviter ainsi une usure rapide des outils concernés.
- La même fonction de serrage peut être sollicitée pour un ravitaillement d'une longue pièce nécessitant une ouverture de pince, il remplace alors le «serre-fil» traditionnel.
- A l'opposé, la position ouverte du canon permet des avances rapides de la poupée, en évitant des marques du canon sur la matière brute.
- Lors du changement de barre, cette position ouverte facilite l'extraction de la chute et favorise l'introduction de la nouvelle barre.

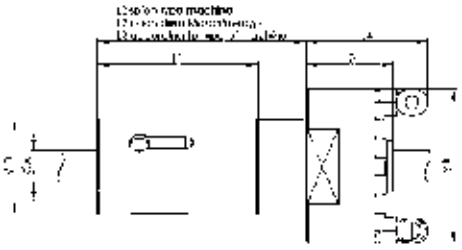
FÜHRUNGSBÜCHSE 3 POSITIONEN

- *Nicht drehende Büchse mit Hartmetallrollen und direktem Kontakt mit der bearbeiteten Materialstange. Die Einstellung erfolgt durch einen pneumatischen Zylinder.*
- *3 Positionen: Arbeitsposition - Spannposition - offene Position.*
- *Vor der Bearbeitung eines jeden Werkstückes passt sich die Führungsbüchse der genauen Toleranz (Max. h11) der Materialstange an, da wo das Werkstück bearbeitet wird.*
- *Die Montage kann mit Büchsenhaltern unserer Fabrikation auf die meisten CNC Maschinen erfolgen (siehe Seite 18).*
- *Bei einer Mikro-Fräsung oder bei irgendeiner radialen Bearbeitung erlaubt die Spannfunktion der Führungsbüchse die Stange in starrer Weise zu halten und vermeidet so einen schnellen Verschleiss der Werkzeuge*
- *Die gleiche Spannfunktion kann beansprucht werden, wenn ein langes Werkstück bearbeitet wird, wobei die Spannzange sich öffnen muss. Die Führungsbüchse ersetzt dann die übliche Drahtklemmvorrichtung.*
- *Andernfalls ermöglicht die Öffnungsposition der TP Führungsbüchse Schnellvorschübe des Spindelstockes zuzufügen, wobei unerwünschte Verletzungen der Stange vermieden werden.*
- *Beim Stangenwechsel erleichtert die offene Position den Auswurf des Endstückes und das Einführen der neuen Stange.*

GUIDE BUSH 3 POSITIONS

- Non-revolving bush fitted with tungsten carbide rollers. Direct contact with the machined material bar. The adjustment is done by a pneumatic cylinder.
- 3 positions: working - clamping – open.
- Before machining each workpiece, the guide bush gets adjusted to the exact tolerance (max. h11) of the material bar, there where the workpiece will be clamped.
- Assembly is possible with guide bush holders of our production on most of the CNC machines (see page 18).
- At a micro-milling operation or at any other radial machining operation, the clamping function of the TP bush permits to maintain the bar in a rigid manner, avoiding a rapid wear of the tools used.
- The same clamping function can be asked for when feeding a long workpiece requesting the clamping collet to open. The bush replaces then the conventional "thread clamping device".
- On the other side, the open position of the TP bush permits fast feeds by the headstock, avoiding eventual marks made by the bush on the raw material bar.
- When changing the bar, the open position makes easy to extract the useless end-piece of the bar. The new bar can easily be introduced.





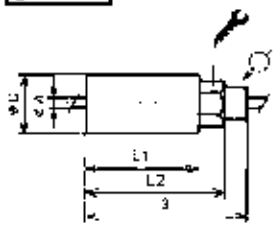
	øA	øB	øD	L1	L3	L4
TP 18	3.38 - 4.76	36	18	35	25	37
TP 22	4.77 - 5.57	38	22	40	25	37
TP 25	5.66 - 7.36	41	25	45	26	37
TP 30	7.37 - 10.45	48	30	50	27	38
TP 35	10.46 - 18.10	55	35	55	28	38
TP 40	18.11 - 22.00	66	40	60	29	41

HAROLD HABEGGER

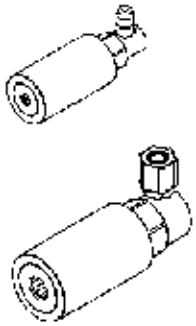
CANONS DE GUIDAGE A GALETS EN METAL DUR, AVEC SYSTEME DE LUBRIFICATION
FÜHRUNGSBÜSCHSEN MIT HARTMETALLROLLEN, MIT SCHMIERSYSTEM
GUIDE BUSHES WITH CARBIDE ROLLERS, WITH LUBRICATING SYSTEM

Type de canon
Führungsbüchse-Typ
Guide bush type

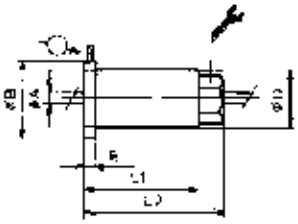
D



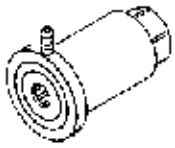
	øA	øD	L1	L2	L3	🔧
D 15	1.59 - 3.37	15	35	59	71	10
D 18	3.38 - 4.76	18	35	59	71	12
D 22	4.77 - 5.67	22	40	59	73	14
D 25	5.68 - 7.36	25	45	59	73	17
D 30	7.37 - 10.45	30	50	62	76	22
D 35	10.46 - 18.10	35	55	67	81	25
D 40	18.11 - 22.00	40	60	72	86	30
D 50	22.01 - 26.00	50	65	79	93	36



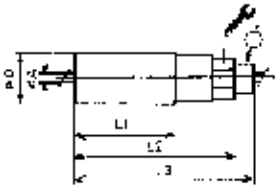
LD



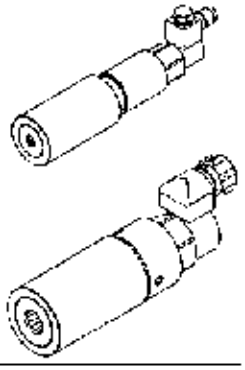
	øA	øD	L1	L2	øB	E	🔧
LD 15	1.59 - 3.37	15	35	59	25	5	10
LD 18	3.38 - 4.76	18	35	59	28	5	12
LD 22	4.77 - 5.67	22	40	59	32	5	14
LD 25	5.68 - 7.36	25	45	59	35	5	17
LD 30	7.37 - 10.45	30	50	62	40	8	22
LD 35	10.46 - 18.10	35	55	67	45	6	25
LD 40	18.11 - 22.00	40	60	72	50	8	30
LD 50	22.01 - 26.00	50	65	79	60	6	36



EXT



	øA	øD	L1	L2	L3	🔧
EXT 15	1.59 - 3.37	15	35	81	93	10
EXT 18	3.38 - 4.76	18	35	81	93	12
EXT 22	4.77 - 5.67	22	40	81	93	14
EXT 25	5.68 - 7.36	25	45	84	98	17
EXT 30	7.37 - 10.45	30	50	84	98	22
EXT 35	10.46 - 18.10	35	55	84	98	25



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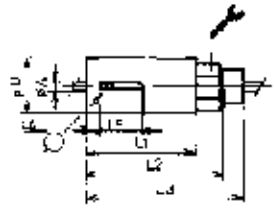
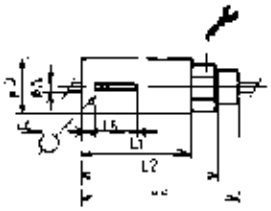
CNC



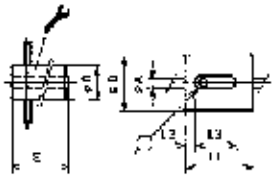
	øA	øD	L1	L2	L3	L4	L5	🔧
CNC 15	1.59 - 3.37	15	35	59	71	5	12	10
CNC 18	3.38 - 4.76	18	35	59	71	11.5	12	12
CNC 22	4.77 - 5.67	22	40	59	73	11.5	12	14
CNC 25	5.68 - 7.36	25	45	59	73	11.5	12	17
CNC 30	7.37 - 10.45	30	50	62	76	10.5	14	22
CNC 35	10.46 - 16.10	35	55	67	81	10.5	14	25
CNC 40	16.11 - 22.00	40	60	72	86	10.5	14	30
CNC 50	22.01 - 26.00	50	65	79	93	10.5	14	36

EN



	øA	øD	L1	L2	L3	L4	L5	🔧
EN 15	1.59 - 3.37	15	35	59	71	11.5	15	10
EN 18	3.38 - 4.76	18	35	59	71	11.5	15	12
EN 22	4.77 - 5.67	22	40	59	73	11.5	25	14
EN 25	5.68 - 7.36	25	45	59	73	11.5	30	17
EN 30	7.37 - 10.45	30	50	62	76	10.5	32	22
EN 35	10.46 - 16.10	35	55	67	81	10.5	32	25
EN 40	16.11 - 22.00	40	60	72	86	10.5	32	30
EN 50	22.01 - 26.00	50	65	79	93	10.5	32	36

C



	øA	øD	L1	L2	L3	øB	E	🔧
C 15	1.59 - 3.37	15	27	10	9	11	45	C 15
C 18	3.38 - 4.76	18	30	10	9	14	60	C 18
C 22	4.77 - 5.67	22	32	10	12	17	60	C 22
C 25	5.68 - 7.36	25	36	10	15	19	60	C 25
C 30	7.37 - 10.45	30	40	10	19	22	60	C 30
C 35	10.46 - 16.10	35	42	10	22	26	60	C 35
C 40	16.11 - 22.00	40	50	10	27	32	80	C 40
C 50	22.01 - 26.00	50	55	10	30	38	80	C 50
C 66	26.01 - 32.00	66	60	10	30	45	80	C 66

- La clé de réglage du canon C est pré-guidée sur la matière, il est donc nécessaire d'avoir une clé par diamètre de passage de barre.
  Der Einstell-Schlüssel für Büchse C wird auf dem Material vorgeleitet. Man muss deshalb für jeden Materialdurchlass einen Schlüssel vorrätig halten.
  The setting key for C bush is pre-guided on the material bar. Therefore it is necessary to hold one key per material diameter.

HAROLD HABEGGER

PORTE-CANONS
BÜSCHSENHALTER
BUSH HOLDERS

Pour tour *Für Automaten* For lathe	Type de canon *Führungsbüchse-Typ* Guide bush type	
TORNOS		
ENC - 16 / 162 / 164	CNC / C	
ENC - 26 / 262 / 264 / TOP 200	EN / C	
ENC - 74 / 75	CNC / C	
ENC - 163 / 167	CNC / C	
DECO 2000 - 7/10	CNC / C	
DECO 2000 - 13 / 16	C	
DECO 2000 - 20	CNC / C	
DECO 2000 - 26	CNC / C	
DECO Sigma 20	CNC / C	
DECO Sigma 32	CNC / C	SP. Ø 26.00 - Ø 32.00
DELTA 12 / 20	CNC / C	
EvoDECO 10	CNC / C	
EvoDECO 16	C	
Gamma 20	CNC / C	
MANURHIN		
Swing 13	CNC / C	
Swing 20	CNC / C	
Twin	CNC / C	
KMX 20/26	LD	
KMX 413	CNC / C	
STAR		
RNC 16	CNC / C	
SW 7R / SW10	CNC / C	
SH 7/12/16	CNC / C	
SE 7/12/16	CNC / C	
SA12/16	CNC / C	
SB 16	CNC / C	
SV 12	CNC / C	
SV 20	CNC / C	
SV 32 / SV 32-J	CNC / C	SP. Ø 26.00 - Ø 32.00
SR-10J	CNC / C	
SR 16 / SR 20 R I-II-III	CNC / C	
ECAS 12/20	CNC / C	
TSUGAMI		
NP4	CNC / C	
NP11 / NP17	CNC / C	
BW07 / BW12	CNC / C	
BO20 / BO205	CNC / C	

Pour tour *Für Automaten* For lathe	Type de canon *Führungsbüchse-Typ* Guide bush type	
CITIZEN		
L 16	EXT	
L 20	CNC / C	
L 20 V - VI - VII	CNC / C	
M 12	CNC / C	
M 16	CNC / C	
M 20	CNC / C	
M 32	CNC / C	SP. Ø 26.00 - Ø 32.00
K 12 / K 16	CNC / C	
C 16	CNC / C	
R 04	CNC / C	
R 07	CNC / C	
A 20 VI - VII	CNC / C	
TRAUB		
TNL 7 / 12	CNC / C	
TNL 16	CNC / C	
TC 32 HOEFLIGER	CNC / C	
HANWHA		
SL 16 S	CNC / C	
XD 20 H	CNC / C	
SL 20 HP II	CNC / C	
STL 32 H / SL 32 J	CNC / C	SP. Ø 26.00 - Ø 32.00
SL 12 H	CNC / C	
XP 12 S	CNC / C	
XD 12 J	CNC / C	
XD 07	C	
NEXTURN		
SA 18	CNC / C	
SA 32	CNC / C	SP. Ø 26.00 - Ø 32.00
MICROSWISS		
MST-07	CNC / C	
GILDEMEISTER		
GLD 16 / 22	CNC / C	
SPEED 12	CNC	

- L'utilisation du canon type CNC, EN ou C est possible avec les porte-canons de notre fabrication uniquement.
  Die Anwendung der Führungsbüchsen Typ CNC, EN oder C ist nur mit den Büchsenhaltern unserer Herstellung möglich.
  The use of guide bushes type CNC, EN or C is only possible together with the bush holders of our own make.

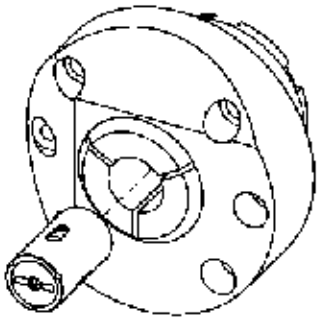
- Notre site internet vous renseigne sur les nouvelles fabrications de porte-canons.
  Unsere Web-Seite gibt Ihnen Bescheid über die neuen Herstellungen von Büchsenhaltern.
  Our home page gives you information about our new productions of bush holders.

HAROLD HABEGGER

EXEMPLES DE MONTAGE
MONTAGE-BEISPIELE
ASSEMBLY EXAMPLES

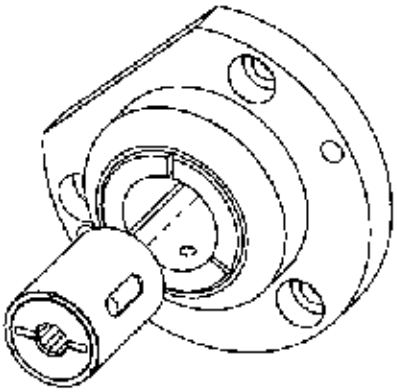
STAR SR-10J

(avec canon type C)
(mit Führungsbüchse Typ C)
(with guide bush type C)



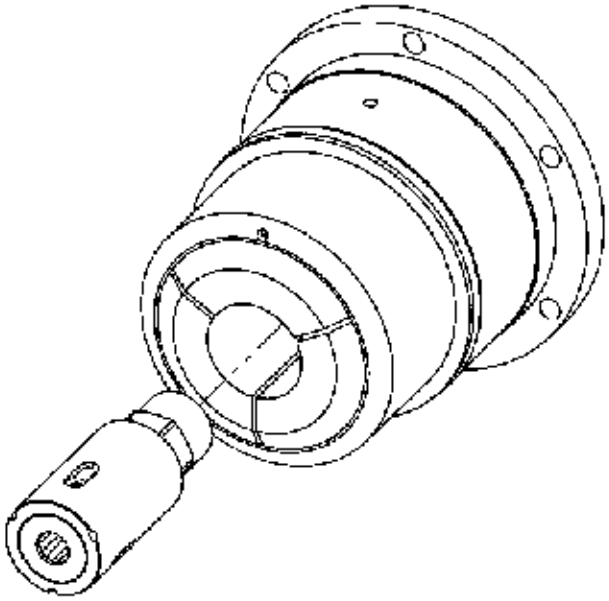
CITIZEN M12/M16

(avec canon type C)
(mit Führungsbüchse Typ C)
(with guide bush type C)



TORNOS DECO 20/26A/Sigma20

(avec canon type CNC)
(mit Führungsbüchse Typ CNC)
(with guide bush type CNC)



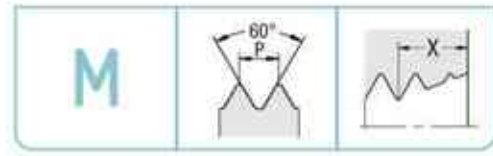
HAROLD HABEGGER

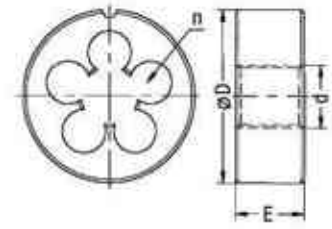
PORTE-CANONS POUR MACHINES CONVENTIONNELLES
BÜCHSENHALTER FÜR KONVENTIONNELLE DREHMASCHINEN
BUSH HOLDERS FOR CONVENTIONAL MACHINES

Pour tour *Für Automaten* For lathe		Alésage *Bohrung* Bore dia.								Type de canon *Führungsbüchse-Typ* Guide bush type
TORNOS	M4-T4	15	18							D
TORNOS	M7		18	22		25				D
TORNOS	M10					25	30			D
TORNOS	R10-MS7					25	30			D
TORNOS	M15-R16						30	35		D
BECHLER	AR-AS	15	18	22		25	30			D
BECHLER	BR-BE					25	30	35	40	50 D
BECHLER	CR						30	35	40	50 D
PETERMANN	P4	15	18							D
PETERMANN	P7 - P7R					25	30			D
STAR	VNC-32							35		50 LD
STROHM	125					25	30			D
MANURHIN	TRAMINER 16								40	LD
NOMURA	Ø 24	15	18	22						D
NOMURA	Ø 30	15	18	22	24	25				D
NOMURA	Ø 40			22		25	30	35		D
NOMURA	Ø 48					25	30	35	40	D
NOMURA	Ø 50					25	30	35	40	D

HAROLD HABEGGER

Precision thread cutting dies
DIN EN 22568
ISO metric thread DIN13

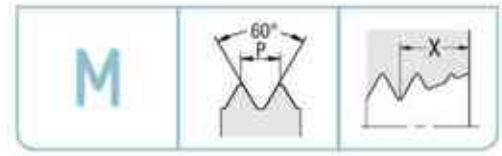


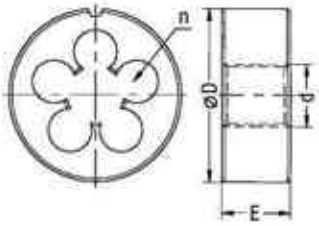


ORDER-CODE → RU →						Schäl		Autom		70°		6e		LH	
d	P mm	ØD x E mm	n	HSS 6g ≤ M 1,4 Tol. 6h x = 1.75 · P		HSS 6g spiral entry x = 1.75 · P		HSS 6g spiral entry M3 and above x = 1.75 · P		HSS 6g short chamfer spiral entry M3 and above x = 1.25 · P		HSS 6e spiral entry M3 and above x = 1.75 · P		HSS 6g links left hand spiral entry M3 and above x = 1.75 · P	
				Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
M 1	0,25	16 x 5	3	101212	27,00			see last page							
M 1,1	0,25	16 x 5	3	101222	33,80										
M 1,2	0,25	16 x 5	3	101224	25,40			see last page							
M 1,4	0,3	16 x 5	3	101238	23,30										
M 1,6	0,35	16 x 5	3	101261	19,60										
M 1,7	0,35	16 x 5	3	101276	21,30										
M 1,8	0,35	16 x 5	3	101291	21,30										
M 2	0,4	16 x 5	3	101816	14,40										
M 2	0,4	16 x 5	4					101621	23,20	141023	○	101828	26,50	101835	26,50
M 2,2	0,45	16 x 5	3	101852	24,10										
M 2,2	0,45	16 x 5	4					see last page							
M 2,3	0,4	16 x 5	3	101865	17,40										
M 2,3	0,4	16 x 5	4					101888	○						
M 2,5	0,45	16 x 5	3	101879	13,10										
M 2,5	0,45	16 x 5	4					101681	20,70	101895	29,80	101868	22,80	101893	22,80
M 2,6	0,45	16 x 5	3	101911	15,10										
M 2,6	0,45	16 x 5	4					101914	20,70					101921	○
M 3	0,5	20 x 5	3	102207	11,10	105131	12,20								
M 3	0,5	20 x 5	4					102210	15,70	102244	25,50	102225	18,70	105132	18,90
M 3	0,5	20 x 5	5												
M 3,5	0,6	20 x 5	3	102272	12,80	105143	14,10								
M 3,5	0,6	20 x 5	4					102275	20,40			102284	25,30	105144	28,10
M 4	0,7	20 x 5	3	102470	11,10	105234	12,20								
M 4	0,7	20 x 5	4					102473	14,50	102501	22,20	102484	17,70	105235	18,00
M 4-5	0,7	20 x 5	5					see next page							
M 4,5	0,75	20 x 7	4	102552	20,50	105243	22,60								
M 5	0,8	20 x 7	4	102642	11,10	105289	12,20			102676	20,30	102659	15,90	105280	16,10
M 5-5	0,8	20 x 7	5					see next page							

gel. for lapped threads 20% extra charge
○ in stock, price on request

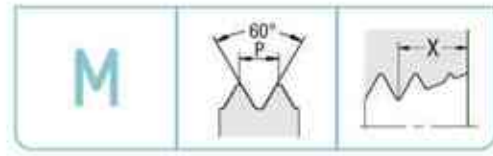
Precision thread cutting dies
DIN EN 22568
ISO metric thread DIN13





ORDER CODE → RU			→	MS		VA		6e-VA		LL (Long Life)	
d ↓	P mm	ØD x E mm	n	HSS 6g brass lapped, spiral entry M3 and above x = 1.25 · P		HSSE 6g spiral entry, lapped ≥ M3 nitr. x = 2 · P		HSSE 6e spiral entry, lapped, nitrided x = 2 · P		HSSE 6g spiral entry, lapped, nitrided x = 2.25 · P	
				Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
M 1	0,25	16 x 5	3			see last page					
M 1,1	0,25	16 x 5	3								
M 1,2	0,25	16 x 5	3			see last page					
M 1,4	0,3	16 x 5	3								
M 1,6	0,35	16 x 5	3								
M 1,7	0,35	16 x 5	3								
M 1,8	0,35	16 x 5	3								
M 2	0,4	16 x 5	3								
M 2	0,4	16 x 5	4	101822	31,00	104225	27,10	see last page		see last page	
M 2,2	0,45	16 x 5	3								
M 2,2	0,45	16 x 5	4			104238	○				
M 2,3	0,4	16 x 5	3								
M 2,3	0,4	16 x 5	4			104242	32,30				
M 2,5	0,45	16 x 5	3								
M 2,5	0,45	16 x 5	4	101882	26,60	104245	25,50			104773	32,20
M 2,6	0,45	16 x 5	3								
M 2,6	0,45	16 x 5	4	101915	○	104255	27,80				
M 3	0,5	20 x 5	3								
M 3	0,5	20 x 5	4	102213	21,20	104308	17,70	104310	45,90		
M 3	0,5	20 x 5	5							104778	27,80
M 3,5	0,6	20 x 5	3								
M 3,5	0,6	20 x 5	4	102277	28,60	104332	19,90				
M 4	0,7	20 x 5	3								
M 4	0,7	20 x 5	4	102475	16,50	104373	17,20	104381	40,00		
M 4	0,7	20 x 5	5			see LL				104781	26,70
M 4,5	0,75	20 x 7	4			104402	○				
M 5	0,8	20 x 7	4	102645	18,10	104418	15,60	104423	24,80		
M 5	0,8	20 x 7	5			see LL				104784	25,70

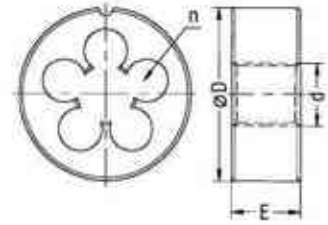
○ in stock, price on request
Prices for further versions on request



Precision thread cutting dies with special outside dimensions

ISO metric thread DIN 13

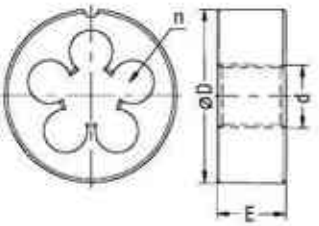
Specification chamfered on both sides, lapped



ORDER-CODE → RU →						6e		VA		6e-VA		LL (Long Life)	
d ●	P mm	Ø D x E mm ↓	n	HSS 6g spiral entry M3 and above ≤ M 1,4 Tol. 6h x = 1.75 · P		HSS 6e spiral entry M3 and above x = 1.75 · P		HSSE 6g spiral entry M2 and above ≥ M 3 nitr. ≤ M 1,4 Tol. 6h x = 2 · P		HSSE 6e spiral entry ≥ M 3 nitr. x = 2 · P		HSSE 6g spiral entry ≥ M 3 nitr. x = 2.25 · P	
				Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
M 1	0,25	16 x 2	3	101214	○			104035	○				
M 1,2	0,25	16 x 2	3	101226	○			104040	○				
M 1,4	0,3	12 x 2,6	4	101239	○								
M 1,4	0,3	16 x 2,6	4	101240	34,00			104044	37,50				
M 1,6	0,35	12 x 2,6	4	101262	○								
M 1,6	0,35	16 x 2,6	4	101263	33,40			104049	36,30				
M 1,7	0,35	12 x 2,6	4	101277	○								
M 1,7	0,35	16 x 2,6	4	101278	○			104053	36,30				
M 1,8	0,35	16 x 2,6	4	101293	○			104056	○				
M 2	0,4	12 x 3,5	4	101817	36,90								
M 2	0,4	16 x 3,5	4					104223	30,80	104228	○	104772	41,30
M 2,2	0,45	16 x 3,5	4					104238	○				
M 2,3	0,4	12 x 3	4										
M 2,3	0,4	16 x 3,5	4					104240	34,20				
M 2,5	0,45	12 x 3,5	4	101880	○								
M 2,6	0,45	12 x 3,5	4										
M 3	0,5	12 x 4	4	102208	33,40			141027	○				
M 3	0,5	16 x 5	4	102209	19,20	102227	22,50	104307	22,10	104312	31,00	104777	39,20*
M 3,5	0,6	16 x 5	4	102274	29,50	102285	○	104333	○				
M 4	0,7	16 x 5	4	102472	19,20	102485	22,50	104374	21,70	104382	31,00	104782	○*
M 5	0,8	16 x 5	4	102843	23,40	102860	28,80	104419	28,00	104424	○	104785	○*
M 6	1	16 x 5	5	102772	26,20	102786	○	104454	○	104463	○	106174	○
M 7	1	20 x 7	5	102888	○								
M 8	1,25	20 x 7	5	102980	29,00	102976	37,40	104512	34,90	104517	○		
M 10	1,5	25 x 9	5	101298	29,00	101316	○	104061	39,00	104064	○		
M 12	1,75	25 x 9	5	101440	○								
M 12	1,75	30 x 11	5	101441	○								

○ in stock, price on request
* with 5 chip holes
Prices for further versions on request

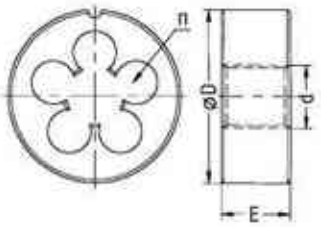
Precision thread cutting dies
DIN EN 22568
Unified national coarse thread
ASME B1.1



ORDER-CODE → RU					1		Schäl 2		LH 3		3A 4		VA 5	
d ↓	Ø d mm	P 6g/1" tpi	Ø D x E mm	n	HSS Tol. 2A x = 1,75 · P		HSS Tol. 2A spiral entry x = 1,75 · P		HSS Tol. 2A links left hand spiral entry x = 1,75 · P		HSS Tol. 3A spiral entry No. 5 and above x = 1,75 · P		HSSE Tol. 2A spiral entry, lapped, nitrided No. 5 and above x = 2 · P	
					Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
UNC Nr. 1	1,85	64	16 x 5	3	103171	28,90								
UNC Nr. 2	2,18	56	16 x 5	4	103183	24,80							104585	○
UNC Nr. 3	2,52	48	16 x 5	4	103185	31,10								
UNC Nr. 4	2,85	40	16 x 5	4	103187	20,70					103198	○	104568	38,40
UNC Nr. 5	3,18	40	20 x 5	4	103200	17,30	105474	19,00			141095	○	104570	○
UNC Nr. 6	3,51	32	20 x 7	4	103202	18,10	105476	17,70			103206	○	104572	32,70
UNC Nr. 8	4,17	32	20 x 7	4	103210	15,70	105478	17,30			103213	○	104578	32,40
UNC Nr. 10	4,83	24	20 x 7	4	103174	15,70	105468	17,30	105469	○			104563	○
UNC Nr. 12	5,49	24	20 x 7	4	103177	17,70	105470	19,40					104564	○
UNC 1/4"	6,35	20	20 x 7	4	103229	13,90	105491	15,30	105492	○	103239	○	104583	30,00*
UNC 5/16"	7,94	18	25 x 9	4	103247	15,80	105499	17,40	105500	○	103250	○	104588	40,70*
UNC 3/8"	9,53	16	30 x 11	4	103240	18,80	105497	20,40	105498	○	103244	○	104586	42,80*
UNC 7/16"	11,11	14	30 x 11	4	103255	19,20	105504	21,10	105505	○	103258	○	104590	○*
UNC 1/2"	12,70	13	38 x 14	4	103226	23,40	105489	25,70	105489	○	103227	○	104591	○*
UNC 9/16"	14,29	12	38 x 14	4	103262	26,40	105509	28,10	105510	○			104592	○*
UNC 5/8"	15,88	11	45 x 18	4	103252	30,90	105502	34,00	105503	○			104589	○*
UNC 3/4"	19,05	10	45 x 18	5	103237	31,60	105495	34,70	105496	○			104585	○
UNC 7/8"	22,23	9	55 x 22	5	103260	46,40	105506	51,10	105507	○			104591	○**
UNC 1"	25,40	8	55 x 22	5	103216	46,40	105480	51,10	105481	○			104577	○**
UNC 1 1/8"	28,58	7	65 x 25	5	103223	87,00	105484	95,60						
UNC 1 1/4"	31,75	7	65 x 25	6	103221	87,00	105483	95,60	141108	○				
UNC 1 3/8"	34,93	6	65 x 25	6			105487	104,80						
UNC 1 1/2"	38,10	6	75 x 30	6	103219	120,40	105482	132,40						
UNC 1 3/4"	44,45	5	90 x 36	6			105485	210,00						
UNC 2"	50,80	4 1/2	90 x 36	7			105494	212,00						

Columns 1 and 2 ➡ gel, for lapped threads 20% extra charge
○ in stock, price on request
Prices for further versions on request
* with 5 chip holes
** with 6 chip holes

Precision thread cutting dies
DIN EN 22568
Unified national fine thread
ASME B1.1



ORDER-CODE → RU					1		Schäl 2		LH 3		3A 4		VA 5	
d	Ø d mm	P 6g/1" tpi	Ø D x E mm	n	HSS Tol. 2A x = 1,75 · P		HSS Tol. 2A spiral entry x = 1,75 · P		HSS Tol. 2A links left hand spiral entry x = 1,75 · P		HSS Tol. 3A spiral entry No. 5 and above x = 1,75 · P		HSSE Tol. 2A spiral entry, tapped, nitrided No. 5 and above x = 2 · P	
					Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
UNF Nr. 0	1,52	80	16 x 5	3	103266	24,30								
UNF Nr. 1	1,85	72	16 x 5	3	103268	23,40								
UNF Nr. 2	2,18	64	16 x 5	4	103279	27,00								
UNF Nr. 3	2,52	56	16 x 5	4	103282	31,10								
UNF Nr. 4	2,85	48	16 x 5	4	103284	26,50					103287	○	104603	○
UNF Nr. 5	3,18	44	20 x 5	4	103289	21,60	105519	23,80			103290	○	104605	○
UNF Nr. 6	3,51	40	20 x 5	4	103293	20,70	105521	22,70			103286	○	104607	○
UNF Nr. 8	4,17	36	20 x 7	4	103297	18,20	105522	20,10			108406	○	104609	○
UNF Nr. 10	4,83	32	20 x 7	4	103269	14,30	105512	15,70	105513	○	103272	○	104595	27,60
UNF Nr. 12	5,49	28	20 x 7	4	103276	16,70	105514	18,50			108742	○	104600	○
UNF 1/4"	6,35	28	20 x 7	4	103317	13,90	105531	15,30	105532	30,00	103320	○	104618	33,20
UNF 5/16"	7,94	24	25 x 9	4	103342	15,60	105538	17,40	105539	34,30	103348	○	104628	34,50
UNF 3/8"	9,53	24	30 x 11	4	103332	18,60	105535	20,40	105536	34,00	103338	○	104624	42,50*
UNF 7/16"	11,11	20	30 x 11	5	103359	19,30	105542	21,10	105543	49,80	103366	○	104634	42,10
UNF 1/2"	12,70	20	38 x 10	5	103310	23,40	105529	25,70	105530	47,00	103313	○	104614	○
UNF 9/16"	14,29	18	38 x 10	5	103375	23,60	105545	26,00	105546	43,30	103377	○	104639	○
UNF 5/8"	15,88	18	45 x 14	5	103351	30,90	105540	34,00	105541	61,40	103357	○	104631	○
UNF 3/4"	19,05	16	45 x 14	6	103325	30,90	105533	34,00	105534	63,20	103330	○	104621	○
UNF 7/8"	22,23	14	55 x 16	5	103370	42,40	105544	46,60	108656	77,20	103373	○	104638	○
UNF 1"	25,40	12	55 x 16	6	103299	44,50	105523	48,90	105524	○				
UNF 1 1/8"	28,58	12	65 x 18	6	103308	70,80	105527	77,90						
UNF 1 1/4"	31,75	12	65 x 18	7	103306	70,80	105526	77,90	108652	○				
UNF 1 3/8"	34,93	12	65 x 18	8	103309	81,70	105528	89,80						
UNF 1 1/2"	38,10	12	75 x 20	7	103302	100,50	105525	110,50						

Columns 1-4 ✚ gel, for lapped threads 20% extra charge
○ in stock, price on request
Prices for further versions on request
*with 5 chip holes

titecswiss

Your partner for
swiss quality thread gauges

Thread plug and thread ring gauges diameter 0.30 – 1.60mm

Standard tolerance NIHS
Special tolerances (UNM, ISO, DIN, etc.) on demand
Special diameter and/or special pitch on demand

www.titecswiss.com

titecswiss

Art.01
Go

Thread plug gauge (Go)
handle diameter 4.5 mm
Standard sizes 0.30 - 1.60mm
Tolerance NIHS
Color: green

Art.02
NoGo

Thread plug gauge (NoGo)
handle diameter 4.5 mm
Standard sizes 0.30 - 1.60mm
Tolerance NIHS
Color: red

Art.03
Go/NoGo

Thread plug gauge (Go/NoGo)
handle diameter 4.5 mm
Standard sizes 0.30 - 1.60mm
Tolerance NIHS
Color: black

Art.04
Go

Thread ring gauge (Go)
handle diameter 6.0 mm
Standard sizes 0.30 - 1.60mm
Tolerance NIHS
Color: green

Art.05
NoGo

Thread ring gauge (NoGo)
handle diameter 6.0 mm
Standard sizes 0.30 - 1.60mm
Tolerance NIHS
Color: red

Art.06
Go/NoGo

Thread ring gauge (Go/NoGo)
handle diameter 6.0 mm
Standard sizes 0.30 – 1.60mm
Tolerance NIHS
Color: black

Art.07
Go

Thread plug gauge (Go)
handle diameter 2.0 mm
Standard sizes 0.30 - 1.20mm
Tolerance NIHS
Color: green

Art.08
NoGo

Thread plug gauge (NoGo)
handle diameter 2.0 mm
Standard sizes 0.30 - 1.20mm
Tolerance NIHS
Color: red

Art.09
Go

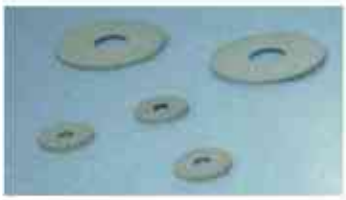
Thread ring gauge (Go)
handle diameter 20mm
Standard size 0.30-1.60mm
Tolerance NIHS
Color: green

Art.10
NoGo

Thread ring gauge (NoGo)
handle diameter 20mm
Standard size 0.30-1.60mm
Tolerance NIHS
Color: red

Product	Size	Quantity

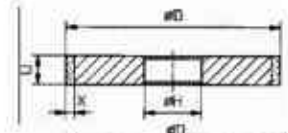
Special sizes or tolerances on demand

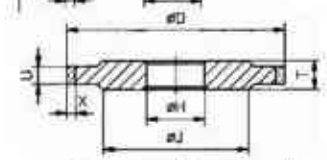


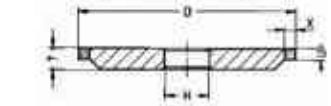
Tasseau Ewag standard ø

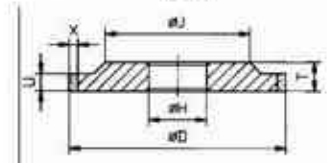
Tasseau Ewag long ø 20

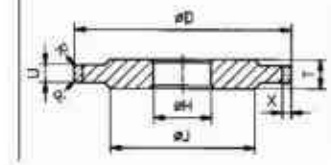
Tasseau Ewag standard ø 10

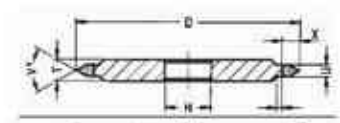

1A1 p.5

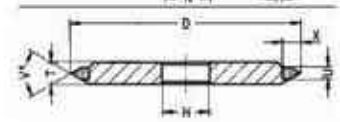

14A1 p.5

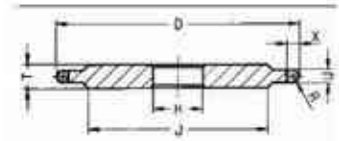

4A1 p.5

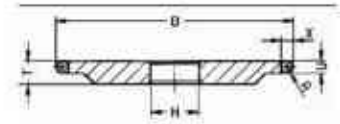

3A1 p.5

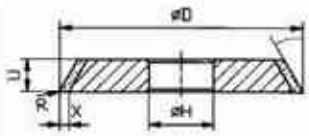

14L1 p.5

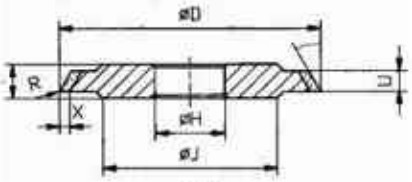

14E1 p.6

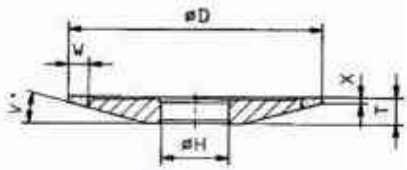

4E1 p.6

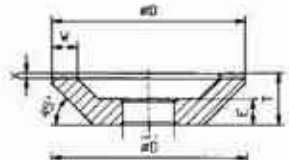

14F1 p.7

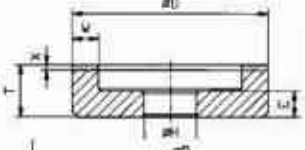

3F1 p.7

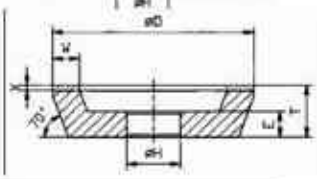

1V1 p.8

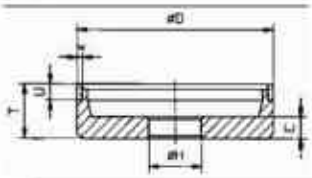

14V1 p.8

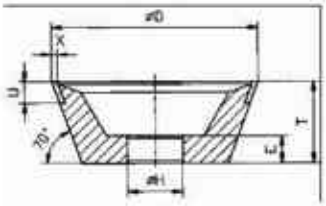

4BT9 p.9

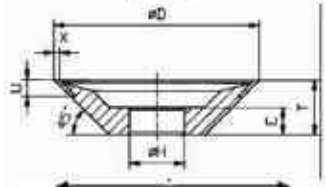

12A2 45° p.10
12A2 45° EW
(monobloc) p.10-1

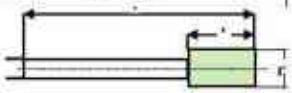

6A2 p.10

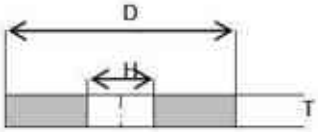

11A2 p.10


6A9 p.10

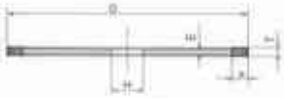

11V9 p.11

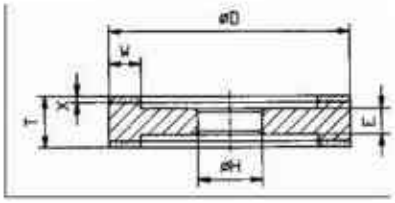

12V9 p.11


1A1W p.12



1A8 p.13


1A1R p.13


9A3 p.15-16

Pâte de diamant	p.14	Vitesse de coupe	p.4
Grosseur des grains	p.2	Liants	p.3
Meule réafûttage	P. 17	Machine Metocut	p.18

Grosseurs standard des grains de diamant et de CBN

Standard-Körnungsgrössen für Diamant und CBN

Standard grit size for diamond and CBN

Diamant *Diamant* FEPA Standard *des*		CBN *CBN* *Standard FEPA*	US-Standard	Nennmaschenweite *Standard US* ASTM-E-11-70 (US Mesh)		nach ISO R 565-72 *Grosseur nominale*
Eng *565-72* *Etroit*	weit *large*	eng *étroit*	weit *large*	eng *étroit*	weit *large*	*tamis d'après ISO R* (µm)
D 1181	D 1182	B 1181	B 1182	16/18	16/20	1180 - 1000
D 1001		**^**	**B 1001**	**18/20**		**1000 - 850**
D 851	D 852	B 851	B 852	20/25	20/30	850 - 710
D 711			**B 711**	**25/30**		**710 - 600**
D 601	D 602	B 601	B 602	30/35	30/40	600 - 500
D 501			**B 501**	**35/40**		**500 - 425**
D 426	D 427	B 426	B 427	40/45	40/50	425 - 355
D 356			**B 356**	**45/50**		**355 - 300**
D 301			**B 301**	**50/60**		**300 - 250**
D 251	D 252	B 251	B 252	60/70		250 - 212
D 213			**B 213**	**70/80**		**212 - 180**
D 181			**B 181**	**80/100**		**180 - 150**
D 151			**B 151**	**100/120**		**150 - 125**
D 126			**B 126**	**120/140**		**125 - 106**
D 107			**B 107**	**140/170**		**106 - 90**
D 91			**B 91**	**170/200**		**90 - 75**
D 76			**B 76**	**200/230**		**75 - 63**
D 64			**B 64**	**230/270**		**63 - 53**
D 54			**B 54**	**270/325**		**53 - 45**
D 46			**B 46**	**325/400**		**45 - 38**
D 35						**45 - 32**
D 30			**B 30**	**600**		**40 - 30**
D 25				**700**		**32 - 25**
D 20				**800**		**30 - 20**
D 15			**B 15**	**1000**		**25 - 15**
D 15 A				**1200**		**15 - 10**
D 10						**6 - 12**
D 7						**5 - 8**
D 3						**2 - 4**
D 1						**1 - 2**

	D7 D10	D15 D20 B15	D25 B30 D30 B46 D46 B54	D46 B64 D54 B76 D64 B91	D76 B126 D91 B151 D126	D151 B181 D181 D201	D213 B181 D251 B213	D251 B251 B301
Etat de surface Oberflächengüte Surface quality	N1	N2	N3	N4	N5	N6	N7	N8
Ra (my)	0,025	0,05	0,10	0,2	0,4	0,8	1,60	3,20
Rt (my)	0,500	0,80	1,25	2,5	5,0	8,0	16,0	32,0
Rz (my)	0,400	0,63	1,00	2,0	4,0	6,3	10,0	16,0

We offer a wide range of high quality grinding tools.

Bonds developed by : *Jean-Marc Gabus*
Président
UNIROCK SA

PSP	soft resin bond	
PSPC	med soft resin bond	Resin bond for dry grinding or wet grinding on carbide. Specially advised for wheels types : 12A2 45° for Ewag machine and similar / dry grinding and wheels for wet surface grinding.
PSE	**standard resin bond**	
PSQ	med hard resin bond	
PSR	hard resin bond	Carbide grinding, ceramics and hard steel grinding for profile wheels with high diamond concentration (C100 – C150). Eventually dry grinding ; we advise wet grinding.
PSQP	very hard resin bond *new*	
PSH	resin bond solf	
ALP	resin-metallic bond with alu base	For cup wheels type 6A2, 12A2 etc. Rough grinding operations (D126 – D181) of cylindrical carbide surfaces for dry grinding of small diameters.
GGE	soft resin metallic bond	Dry grinding of carbide (D46 – D126). Very good for every type of wheels.
GGSP	very hard resin metallic bond *new*	Bond for deep grinding with diamond grits or CBN grits, into carbide, steel and ceramics, especially for wheels type 1V1, 1A1 etc. from grit size D15 – D181. Wet machining with high pressure.
GGX	hard resin metallic bond	
GGV	med hard resin metallic bond	
GGS	standard resin metallic bond	
GGQ	med soft resin metallic bond	For cup wheels type 6A2. Used for wet rough grinding operations (D126 – D181) of cylindrical carbide surfaces.
GGF	soft resin metallic bond	
MD0	metallic-bronze bond very hard	For profile wheels used for rough grinding of tools with very small contact surface (C100 – C150).
MD1	metallic-bronze bond hard	
MD2	metallic-bronze bond normal	For wheels type 12A2, 6A2 etc. For rough grinding of standard tools with very small contact surface ; wet rough grinding is better.
MD4	metallic-bronze bond med-soft	
MD6	metallic-bronze bond soft	
MD8	metallic-bronze bond very soft	

The hubs of the grinding whells are adapted to the situations of sharpening

We have also hubs of grinding wheels absorbing the vibrations

Diamond or CBN concentration for diamond and CBN Wheels

C50	2,2 carats/Cm3	low
C75	3,3 carats/Cm3	normal
C100	4,4 carats/Cm3	high
C125	5,5 carats/Cm3	very high
C150	6,6 carats/Cm3	extra high

As we know, the range of grinding tools is very wide and complex, so if you have any grinding problem, please contact our technical support service.
In order to optimize our products with your production we readily advise you.

	liant résinoïde *Kunstharzbindung resin bond*		liant métallique *Metallbindung metal bond*		liant électrolytique *galvanische bindung electro-plated bond*
	s. arrosage *nass/wet* m/s	à sec *trocken/dry* m/s	s. arrosage *nass/wet* m/s	à sec *trocken/dry* m/s	s. arrosage/à sec *nass/trock. wet/dry* m/s
MEULES DIAMANT p. METAUX TREMPES / *DIAMANTSCHEIBEN f. HARTMETALL / DIAMOND WHEELS for HARD METAL*					
Rectification d'outils Werkzeugschleifen / *tool grinding*	25-35	16-22	12-20	12-20	20-30
Rectification intérieure Innenschleifen / *internal grinding*	10-20	8-15	10-18	8-12	10-20
Rectification de surfaces planes Flachschleifen / *surface grinding*	25-35	-	20-30	-	20-30
Rectification de surfaces extérieures cylindriques Aussenrundschleifen *external cylindrical grinding*	25-35	-	20-30	-	20-30

MEULES CBN p. ACIER HSS / *CBN-SCHLEIFSCHEIBEN f. HSS-STAHL / CBN WHEELS for HSS*

Rectification d'outils *Werkzeugschleifen / tool grinding*	25-35	16-28	15-25	10-15	20-30
Rectification intérieure *Innenschleifen / internal grinding*	15-35	10-20	12-20	10-15	10-20
Rectification de surfaces planes *Flachschleifen / surface grinding*	30-40	-	15-25	-	20-30
Rectification de surfaces extérieures cylindriques ***Aussenrundschleifen*** **external cylindrical grinding**	30-40	-	15-25	-	20-30

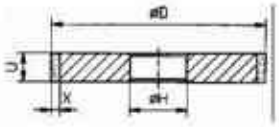
Vitesse de Rotation (tours/min.) / ***Drehzahl pro Minute*** / **Speed of Rotation** (r.p.m.)

Diamètre de meule
Scheiben-Ø (mm)

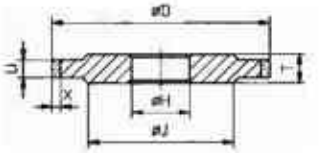
Vitesse de coupe / Cutting Rate
Schnittgeschwindigkeit

Wheel diameter	**8 m/s**	**12 m/s**	**15 m/s**	**18 m/s**	**20 m/s**	**22 m/s**	**28 m/s**	**30 m/s**
5	30560	45800	57300	68800	76400			
10	15280	22930	28650	34380	38200	42000	53500	57300
15	10170	15300	19100	22900	25500	28000	35650	38200
25	6130	9200	11460	13800	15300	16850	21400	23000
50	3050	4580	5730	6870	7650	8400	10700	11450
75	2040	3060	3820	4580	5100	5600	7150	7650
100	1530	2290	2870	3440	3825	4200	5350	5730
125	1220	1830	2290	2750	3050	3355	4280	4600
150	1020	1530	1910	2290	2550	2800	3570	3800
200	765	1145	1430	1720	1910	2120	2675	2875
250	610	920	1150	1380	1525	1685	2140	2300
300	510	765	950	1145	1275	1400	1780	1900
350	440	655	820	980	1090	1200	1530	1640
400	380	570	715	860	960	1050	1340	1450
450	340	510	635	760	850	930	1190	1270
500	305	460	570	690	765	840	1070	114

1A1



14A1



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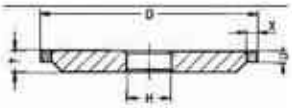

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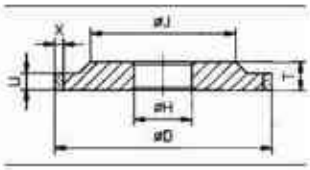
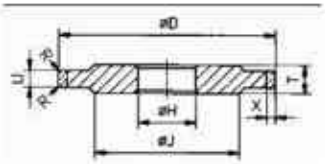


14L1



D	U	X
20	5 -15	2,3
25	5 -15	2
30	5 -15	3,5
40	3 -15	3,4,5,6
45	3 -15	3
50	3 -15	3,4,5
58	3 -15	6
60	3 -15	6
75	1 -100	3,4,5,6,8,10,12
80	1 -100	3,4,7
100	1 -100	2,3,4,5,6,10,12,15,20,30
125	1 -100	3,4,6,8,10,20
150	1 -100	3,4,6,10,15,20,25
160	1 -100	3,5,6
175	1 -100	2,3,4,5,6,10
180	1 -100	7
200	1 -100	3,4,5,10

D'autres formes et dimensions sur demande / on request other forms
andere Formen auf Anfrage

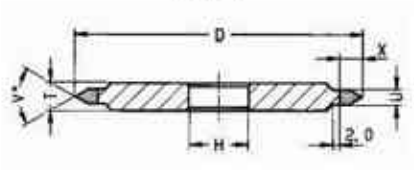
Fax

	Quantity Menge										Bond, Bindung	Preise, price
Pos.	Quantité	Form	R	D	U	X	T	H	Grains	Conc.	Liant	Prix
Ex :	1	14L1	0,5	75	6	5	10	20H6	D46	100	GGS	
1												
2												
3												
4												

UNIROCK SA **DIAMANT CBN CERAMIC**

Im Grund 38 CH-250 Biel / Bienne

14 E 1



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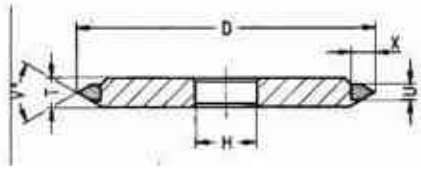


D	U	X
20	2 - 10	2,3
25	2 - 10	2
30	2 - 10	3,5
40	2 - 10	3,4,5,6
45	2 - 10	3
50	2 - 10	3,4,5
58	2 - 10	6
60	2 - 10	6
75	2 - 10	3,4,5,6,8,10,12
80	2 - 10	3,4,7
100	2 - 10	2,3,4,5,6,10,12,15,20,30
125	2 - 10	3,4,6,8,10,20
150	2 - 10	3,4,6,10,15,20,25
160	2 - 10	3,5,6
175	2 - 10	2,3,4,5,6,10
180	2 - 10	7
200	2 - 10	3,4,5,10

D'autres formes et dimensions sur demande / on request other forms
andere Formen auf Anfrage

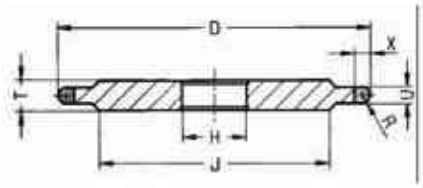
Fax

	Quantity Menge										Bond, Bindung	Preise, price
Pos.	Quantité	Form	V°	D	U	X	T	H	Grains	Conc.	Liant	Prix
Ex :	1	14E1	90	100	3	5	10	20H6	D46	100	PSQP	
1												
2												
3												
4												

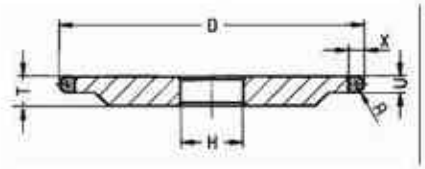
UNIROCK SA **DIAMANT CBN CERAMIC**

Im Grund 38 CH-2502 Biel / Bienne

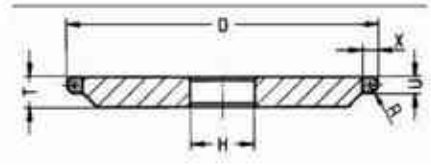
14 F 1



3 F 1



4 F 1



D	U	X
20	2 - 10	2,3
25	2 - 10	2
30	2 - 10	3,5
40	2 - 10	3,4,5,6
45	2 - 10	3
50	2 - 10	3,4,5
58	2 - 10	6
60	2 - 10	6
75	2 - 10	3,4,5,6,8,10,12
80	2 - 10	3,4,7
100	2 - 10	2,3,4,5,6,10,12,15,20,30
125	2 - 10	3,4,6,8,10,20
150	2 - 10	3,4,6,10,15,20,25
160	2 - 10	3,5,6
175	2 - 10	2,3,4,5,6,10
180	2 - 10	7
200	2 - 10	3,4,5,10

D'autres formes et dimensions sur demande / on request other forms
andere Formen auf Anfrage

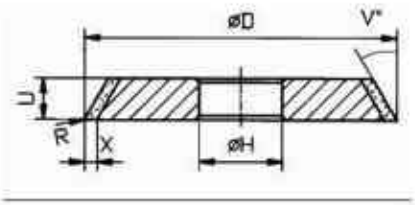
Fax

	Quantity Menge										Bond, Bindung	Preise, price
Pos.	Quantité	Form	R	D	U	X	T	H	Grains	Conc.	Liant	Prix
Ex :	1	14E1	1,5	100	3	5	10	20H6	D46	100	GGS	
1												
2												
3												
4												

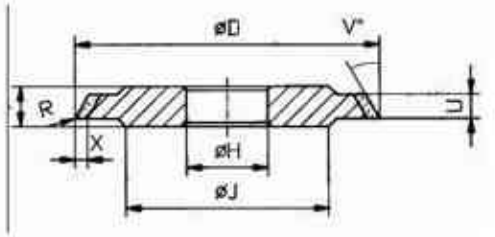
UNIROCK SA **DIAMANT CBN CERAMIC**

Im Grund 38 CH-2502 Biel / Bienne

1V1



14V1



Type	D x U x X
14V1 10°	100x4x6
14V1 10°	100x6x6
14v1 10°	100x7x5
14V1 10°	100x8x10
14V1 10°	100x8x6
14V1 10°	125x7x5
14v1 10°	75x4x5
14v1 15°	75x2x3
14V1 15°	75x3x8
14V1 15°	75x5x10
14V1 15°	75x8x10
14V1 15°	75x8x5
14V1 15°	75x8x8
14V1 20°	75x3x5
14V1 30°	125x5x8
14V1 30°	150x6x6
14V1 30°	150x8x6
14v1 30°	200x3x5
14V1 30°	200x8x8
14V1 30°	75x5x5
14V1 30°	75x8x8

Type	D x U x X
14V1 35°	100x8x5
14V1 35°	150x4x10
14V1 40°	100x4x5
14V1 45°	100x5x6
14V1 45°	100x6x6
14V1 45°	125x10x5
14V1 45°	125x5x5
14V1 45°	125x6x6
14V1 45°	150x4x6
14V1 45°	150x6x6
14V1 45°	175x7x6
14V1 45°	75x4x6
14V1 45°	75x5x6
14V1 50°	100x4x5
14V1 50°	125x4x6
14V1 55°	100x8x5
14V1 72°	200x2,5
14V1 72°	200x2,5x8

D'autres formes et dimensions sur demande / on request other forms andere Formen auf Anfrage

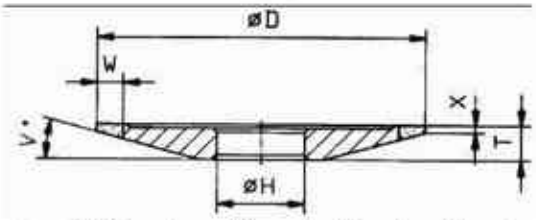
Fax

	Quantity Menge											Bond, Bindung	Preise, price
Pos.	Quantité	Form	V°	R	D	U	X	T	H	Grains	Conc.	Liant	Prix
Ex :	1	14V11	30	0	150	6	6	10	20H6	D46	100	GGS	
1													
2													
3													
4													

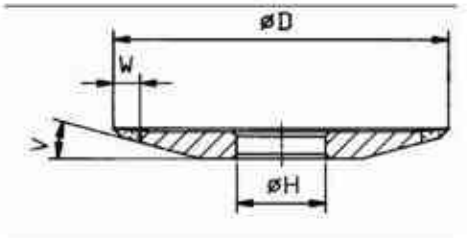
UNIROCK SA **DIAMANT CBN CERAMIC**

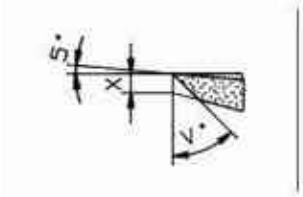
Im Grund 38 CH-2502 Biel / Bienne

4BT9



4ET9





forme	D	W	X
4BT9 5°/20°	50	6	0,3 - 2
4BT9 5°/10°	50	6	0,3 - 2
4BT9 5°/20°	60	6	0,3 - 2
4BT9 5°/10°	60	6	0,3 - 2
4BT9 5°/20°	75	8	0,3 - 2,5
4BT9 5°/20°	80	6	0,3 - 3
4BT9 5°/20°	80	10	0,3 - 3
4BT9 1°/13°	80	10	0,3 - 3
4BT9 5°/20°	100	6	0,3 - 3
4BT9 5°/20°	100	10	0,3 - 4
4BT9 20/45°	100	10	0,5 - 4
4BT9 20/35°	100	10	0,5 - 4
4BT9 20/35°	100	12	0,5 - 4
4BT9 20/30°	100	12	0,5 - 4
4BT9 20/30°	100	16	0,5 - 4
4BT9 20/30°	100	12	0,5 - 4
4BT9 20/30°	100	10	0,5 - 4
4BT9 20/25°	100	16	0,5 - 4
4BT9 20/25°	100	12	0,5 - 4
4BT9 20/25°	100	10	0,5 - 4
4BT9 20/25°	100	12	0,5 - 4
4BT9 20/20°	100	16	0,5 - 4
4BT9 20/20°	100	12	0,5 - 4
4BT9 20/20°	100	10	0,5 - 4
4BT9 5°/20°	125	6	0,5 - 2
4BT9 5°/20°	150	6	0,5 - 2
4BT9 5°/20°	175	6	0,5 - 2

D'autres formes et dimensions sur demande / on request other forms andere Formen auf Anfrage

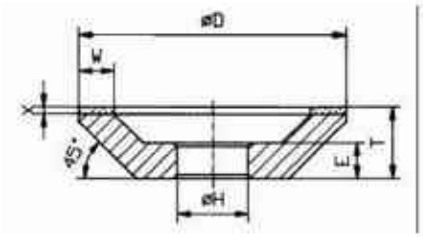
Fax

	Quantity Menge											Bond, Bindung	Preise, price
Pos.	Quantité	Form	V°	R	D	W	X	T	H	Grains	Conc.	Liant	Prix
Ex :	1	4BT9 5°/20°	45°	0	80	6	1	8	20H6	D126	100	GGS	
1													
2													
3													
4													

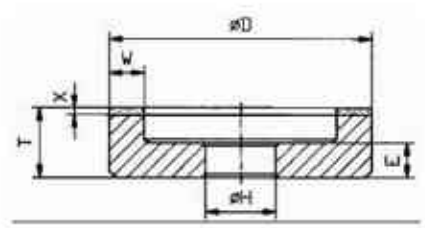
UNIROCK SA **DIAMANT CBN CERAMIC**

Im Grund 38 CH-2502 Biel / Bienne

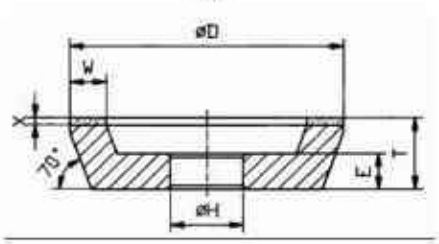
12A2 45°



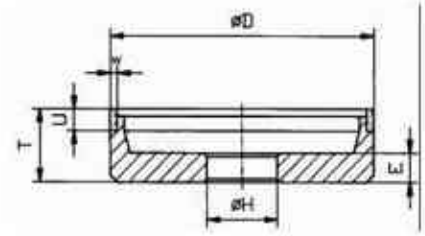
6A2



11A2



6A9



D	W	X
20	2,3	1-15
25	2	1-15
30	3,5	1-15
40	3,4,5,6	1-15
45	3	1-15
50	3,4,5	1-15
58	6	1-15
60	6	1-15
75	3,4,5,6,8,10,12	1-20
80	3,4,7	1-20
100	2,3,4,5,6,10,12,15,20,30	1-20
125	3,4,6,8,10,20	1-20
150	3,4,6,10,15,20,25	1-20
160	3,5,6	1-20
175	2,3,4,5,6,10	1-20
180	7	1-20
200	3,4,5,10	1-20

D'autres formes et dimensions sur demande / on request other forms
andere Formen auf Anfrage

Fax

Pos.	Quantity Menge Quantité	Form	V°	D	W	X	T	H	Grains	Conc.	Bond, Bindung Liant	Preise, price Prix
Ex :	1	12A2	45	75	3	4	10	20H6	D46	100	GGS	
1												
2												
3												
4												
5												

UNIROCK SA **DIAMANT CBN CERAMIC**

Im Grund 38 CH-2502 Biel / Bienne

En stock

12A2 EW

Avec notre meule 12A2 EW Pour machines EWAG avec corps et tasseau MONOBLOC !

Meules diamantées :

12A2 45° ∅ 75x3x4

Avantages :

- ***Plus besoin d'acheter un tasseau***
- ***Equilibrage parfait***
- ***Stabilité extraordinaire***

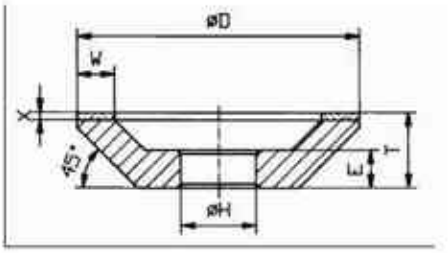
Super finition ,	D10, D15
Finition	D20, D25,D30
Semi-finition	D46, D54, D64, D76
Ebauche	D91, D126, D151, D181

200 meules disponibles du stock .

D'autres formes et dimensions sur demande / on request other forms
andere Formen auf Anfrage

Fax

Nous avons aussi les meules standards 12A2 45° 75x3x4x20H6 du stock avec alésage 20mm

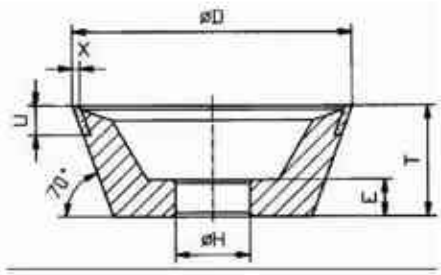


Dans les grains D10, D15, D20, D30, D40, D46, D54, D64, D76, D91, D126, D151

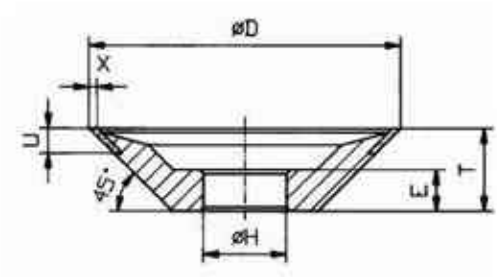
UNIROCK SA **DIAMANT CBN CERAMIC**

Im Grund 38 CH-2502 Biel / Bienne

11V9



12V9



11V9 20°		
D	X	U
15	1 - 2	3
20	1 - 2	5
30	1 - 2	5
50	1 - 2	10
60	1 - 2	8
75	1 - 3	10
100	1 - 4	10
125	1 - 3	10
150	1 - 3	10

12V9 45°		
D	X	U
50	1 - 2	6
60	1 - 2	6
75	1 - 3	6
75	1 - 3	10
100	1,5 - 3	10
125	2 - 3	10
150	3	10

12V9 30°		
D	X	U
150	3	10

12V9 60°		
D	X	U
150	2 - 3	10

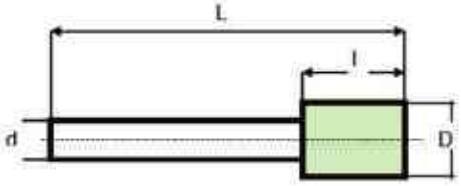
D'autres formes et dimensions sur demande / on request other forms
andere Formen auf Anfrage

Fax

	Quantity Menge										Bond, Bindung	Preise, price
Pos.	Quantité	Form	V°	D	X	U	T	H	Grains	Conc.	Liant	Prix
Ex :	1	11	20	100	3	10	30	20H6	D126	100	GGS	
1												
2												
3												
4												
5												

UNIROCK SA **DIAMANT CBN CERAMIC**

Im Grund 38 CH-2502 Biel / Bienne



Form 1A1W

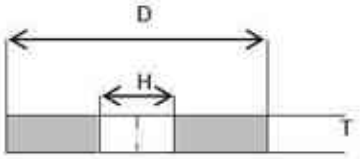
D	d	L	l	conc	grains Korn grit
1,5	3	60	3,5	100	D15, D30, D91
1,8	3	60	4	100	D15, D30, D91
2	3	60	4,5	100	D15, D30, D91
2,2	3	60	4,5	100	D15, D30, D91
2,5	3	60	5	100	D15, D30, D91
2,8	3	60	5,5	100	D15, D30, D91
3	3	60	6	100	D15, D30, D91
3,5	3 & 6	60 & 70	6	100	D15, D30, D91, D181
4	3 & 6	60 & 70	6	100	D15, D30, D91, D181
4,5	3 & 6	60 & 70	6	100	D15, D30, D91, D181
5	3 & 6	60 & 70	6	100	D15, D30, D91, D181
6	6	70	7	100	D15, D30, D91, D181
7	6	70	7	100	D15, D30, D91, D181
8	6	70	8	100	D15, D30, D91, D181
10	6	70	10	100	D15, D30, D91, D181
12	6	70	10	100	D15, D30, D91, D181
15	6 & 8 & 10	70	10	100	D15, D30, D91, D181
20	8 & 10	70	10	100	D15, D30, D91, D181
25	10	70	10	100	D15, D30, D91, D181

D'autres formes et dimensions sur demande / on request other forms
andere Formen auf Anfrage

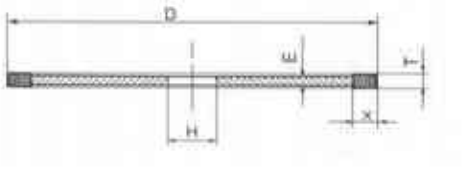
Fax

	Quantity Menge										Bond, Bindung	Preise, price
Pos.	Quantité	Form	R	D	l	d	L		Grains	Conc.	Liant	Prix
Ex :	1	1A1W		10	3	5	10		D30	100	PSE	
1												
2												
3												
4												

1A8



1A1R



D	T	H
8	1-10	4
10	1-10	4
12	1-10	4, 6
14	1-10	4, 6
16	1-10	4, 6
18	1-10	4, 6
20	1-10	4, 6
25	1-10	5, 6, 10, 13
30	1-10	6, 10
32	1-10	10
40	1-10	6, 8, 10, 16
50	1-10	10, 12
60	1-10	10

D	T	X	H
75	0,8	7	10, 20
100	0,9	7	10, 20
125	1	7	20, 30
150	1,2	7	20, 30
175	1,2	7	20, 30
200	1,3	7	20, 30

D'autres formes et dimensions sur demande / on request other forms
andere Formen auf Anfrage

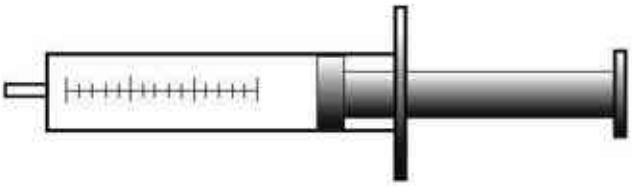
Fax

	Quantity Menge										Bond, Bindung	Preise, price
Pos.	Quantité	Form	R	D	U	X	T	H	Grains	Conc.	Liant	Prix
Ex :	1	1A8		30			3	10	D107	100	GGS	
1												
2												
3												
4												

UNIROCK SA **DIAMANT CBN CERAMIC**

Im Grund 38 CH-2502 Biel / Bienne

Pâte de diamant Diamantpaste Diamond past



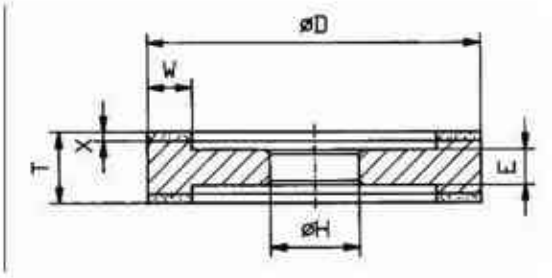
Concentration
Forte, stark, high

Seringue de 5gr.	**Dosierspritze 5gr.**		**Syringe of 5gr.**
type	**Diamant micron**		**couleur, farbe, color**
PD 010	1/10	0 - 0,25	gris foncé, dunkelgrau, darkgrey
PD 14	¼	0 - 0,5	gris, grau, grey
PD 12	½	0 -1	gris clair, hellgrau, lightgrey
PD 10	1	0 -2	ivoire, elfenbein, ivory
PD 30	3	2 -4	jaune, gelb, yellow
PD 60	6	4 - 8	orange
PD 90	9	8 -12	vert, grün, green
PD 120	12	9 - 15	bleu-vert, blaugrün, blue-green
PD 150	15	12 - 22	bleu, blau, blue
PD 200	20	15 – 25	brun clair, hellbraun, light brown
PD 250	25	20 – 20	jaune clair, hellgelb, light yellow
PD 300	30	22 - 36	rouge, rot, red
PD 450	45	36 -54	brun, braun, brown
PD 500	50	40 -60	rose, rosa, pink
PD 600	60	54 -80	pourpre, purpurfarbe, purple
PD 900	90	80 -100	noir, schwarz, black

UNIROCK SA **DIAMANT CBN CERAMIC**

Im Grund 38 CH-2502 Biel / Bienne

9 A 3



D	W	X
20	2,3	2 - 10
25	2	2 - 10
30	3,5	2 - 10
40	3,4,5,6	2 - 10
45	3	2 - 10
50	3,4,5	2 - 10
58	6	2 - 10
60	6	2 - 10
75	3,4,5,6,8,10,12	2 - 10
80	3,4,7	2 - 10
100	2,3,4,5,6,10,12,15,20,30	2 - 10
125	3,4,6,8,10,20	2 - 10
150	3,4,6,10,15,20,25	2 - 10
160	3,5,6	2 - 10
175	2,3,4,5,6,10	2 - 10
180	7	2 - 10
200	3,4,5,10	2 - 10

D'autres formes et dimensions sur demande / on request other forms
andere Formen auf Anfrage

Fax

	Quantity Menge										Bond, Bindung	Preise, price
Pos.	Quantité	Form	D	W	X	H	T	E	Grains	Conc.	Liant	Prix
Ex :	1	9A3	175	6	2	20H6	33	14	D126	75	GGS	
1												
2												
3												
4												

UNIROCK SA DIAMANT CBN CERAMIC

Im Grund 38 CH-2502 Biel / Bienne

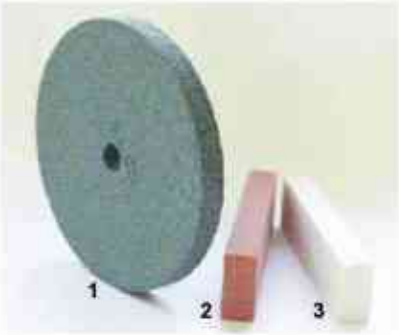
Meules Csi pour réctifiage de meules diamant et CBN

Csi Scheiben für das Nachschleifen von CBN und Diamantscheiben

Csi wheels for sharpening CBN and diamond grinding wheels

1) Meules / scheiben / wheel Csi 100x10x10

L	D91 – D251	Liant métal Bz
I	D151 - D251	Liant métal Bz + Bak
H	D76 - D151	Liant bak
G	D46 - D76	Liant bak
FG	D25 - D40	Liant bak + métal
F	D20 - D30	Liant bak + métal
EF	D15 - D20	Liant bak + métal
E	D7 - D15	Liant bak + métal
D	D7 - D15	Liant bak + métal



Bâtons de redressage
Sticks of rectification
schleifstäbe

2) rouge / rot / red = Meules d'ébauche, vorschleifscheiben, raf grinding wheel

3) blanc / weiss / with = Meules de finition, feinschleifenscheiben, finish grinding wheel

D'autres formes et dimensions sur demande / on request other forms
andere Formen auf Anfrage

Fax

serge meister sa

PRECISION CARBIDE TOOLS

SWISS MADE

Guide to Serge Meister Article Numbers

Guide Bushings prefix = T
Headstock Collets prefix = F
Pickoff Collets prefix = F
All dimensions are in metric

Canon = Guide Bushing
Pince = Collet
LMD refers to the pads inside of guide bushings
^what Southwick & Meister refer to as Max Land. See below.

Guide Bushings are broken into 2 or 3 numbers + an I.D. For example:

T 42 – 82 – 16 .1825"

- The first number refers to the **Body Diameter**
- The second number refers to the **Total Length**
- The third number refers to the **Thread***
- "T" indicates a Guide Bushing
- The other dimension is the I.D. (internal diameter)

If the article number is only 2 numbers + an I.D. (ex. F15 58 .218"), then there is no thread

Headstock Collets are broken into 2 numbers + an I.D. For example:

F 10 – 42 .125"

- The first number refers to the **Body Diameter**
- The second number refers to the **Total Length**
- "F" indicates a Collet
- The other dimension is the I.D. (internal diameter)

Pickoff Collets are broken into 3 numbers + an I.D. For example:

F 13 – 58 – 10 .500"

- The first number refers to the **Body Diameter**
- The second number refers to the **Total Length**
- The third number refers to the **Nose Length**
- "F" indicates a Collet
- The other dimension is the I.D. (internal diameter)

Standard Guide Bushings for each type of CNC Machine are found at the end of Serge Meister Section

Standard Precision .008 - .012µ | Ultra Precision = <.005µ | Ultra Precision is standard for Pickoff Collets

Extended Carbide Pads available in 28, 30, 32, 35mm | All Carbide Pads Radiused as Standard

See Options section for Wave & Zig-Zag Slots, Special Coatings, Shaped Bores, Ejectors, etc.

Tiré

Gezogen

Drawn

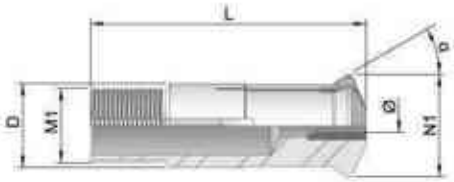


fig.1

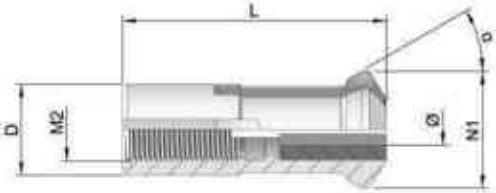


fig.2

Ø maximum passant en métal dur | Maximaler Ø durchgehend Hartmetall | *Maximum Ø through carbide*

N° Serge Meister	D	L	α	N1	M1	M2	Max Ø	Max ●	Max ■	fig.
T7-29	7	29	30°	10	M6 x 0.5		3.0	3.5	3.0	1
T7-30	7	30	16°	9.5	M6 x 0.5		3.5	3.0	2.5	1
T9-26	9	26	30°	11.5		M6 x 0.5	4.0	4.0	3.0	2
T9-44	9	44	16°	12.5	M8 x 0.75		4.0	4.5	3.5	1
T9-50	9	50	30°	12.3	M8 x 0.6		4.0	4.5	3.5	1
T11-50	11	50	30°	15	M10 x 0.6		6.0	5.5	4.5	1
T11-53-M10.075	11	53	16°	14.5	M10 x 0.75		6.5	6.0	4.5	1
T11-53-M10.080	11	53	16°	14.5	M10 x 0.8		6.5	5.5	4.5	1
T12-50-M10.075	12	50	16°	15.5	M10 x 0.75		6.0	5.5	4.5	1
T12-50-M12.1	12	50	30°	15	M12 x 1		7.0	6.5	5.5	1
T13-41.5	13	41.5	15°	16	M12.5 x 0.75		7.0	6.0	5.0	1
T14-64	14	64	16°	18	M13 x 0.75		10.0	8.5	7.0	1
T16-52	16	52	30°	20	M16 x 1		10.0	9.0	7.0	1
T16-58	16	58	16°	19.8	M14 x 1		10.0	9.0	7.0	1
T16-59	16	59	16°	20.5	M14 x 1		10.0	9.0	7.0	1
T16-59-M15.1	16	59	16°	20.5	M15 x 1		10.0	9.0	7.0	1
T16-61	16	61	30°	19.8	M15 x 1		10.0	9.0	7.0	1
T17-61	17	61	30°	21	M15 x 1		12.0	10.5	8.5	1
T18-59-M16.1	18	59	30°	21.8	M16 x 1		12.0	10.5	8.5	1
T18-60-M18.1	18	60	30°	21.8	M18x1		13.0	11.0	9.0	1
T20-55	20	55	30°	25	M20 x 1		13.0	11.0	9.0	1
T21-56.4	21	56.4	12°	24	M18 x 1		14.0	12.0	9.5	1
T21-57.4	21	57.4	12°	24	M18 x 1		14.0	12.0	9.5	1

→

Tiré

Gezogen

Drawn

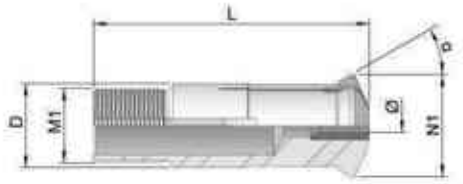


fig.1

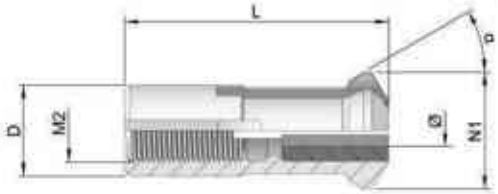


fig.2

Ø maximum passant en métal dur | Maximaler Ø durchgehend Hartmetall | *Maximum Ø through carbide*

N° Serge Meister	D	L	α	N1	M1	Max			fig.
						Ø	●	■	
T21-65.5	21	65.5	12°	24	M18 x 1	14.0	12.0	9.5	1
T22-68-M19.1	22	68	16°	29	M19 x 1	15.0	13.0	10.5	1
T22-68-M22.1	22	68	16°	29	M22 x 1	16.0	14.5	12.0	1
T22-68-M22.1-R	22	68	16°	29	M22 x 1	17.0	14.5	12.0	1
T23-72	23	72	16°	28	M22 x 1	17.0	14.5	12.0	1
T24-61	24	61	30°	30	M24 x 1	16.0	14.0	11.5	1
T25-71	25	71	30°	30	M25 x 1	17.5	15.5	12.5	1
T26-77	26	77	16°	29	M25 x 1	20.0	17.5	14.0	1
T27-57.5	27	57.5	12°	30	M24 x 1	18.0	16.0	13.0	1
T27-67.5	27	67.5	12°	30	M24 x 1	18.0	16.0	13.0	1
T28-81	28	81	30°	38	M25 x 1	20.0	17.0	14.0	1
T28-82-M25.1	28	82	16°	34	M25 x 1	20.0	17.0	14.0	1
T28-82-M27.1	28	82	16°	34	M27 x 1	22.0	19.0	15.5	1
T30-70	30	70	16°	36	M28 x 1	20.5	18.0	14.5	1
T32-71	32	71	30°	39.8	M32 x 1	22.5	19.5	16.0	1
T34-87.5	34	87.5	10°	41	M34 x 1	27.5	24.0	19.5	1
T40-72-M36.1	40	72	30°	47.8	M36 x 1	26.5	23.0	19.0	1
T40-72-M40.1	40	72	30°	48	M40 x 1	28.0	24.0	20.0	1
T41-54	41	54	10°	46	M38 x 1	32.0	28.0	23.0	1
T42-82-C16	42	82	16°	49	M40 x 1	33.0	29.0	24.0	1
T42-82-C16-M	42	82	16°	49	M42 x 1	35.0	30.0	25.5	1
T42-82-C20	42	82	20°	49	M40 x 1	33.0	29.0	24.0	1
T44-87	44	87	20°	53	M40 x 1	32.0	28.0	23.0	1

Tiré | Gezogen | *Drawn*

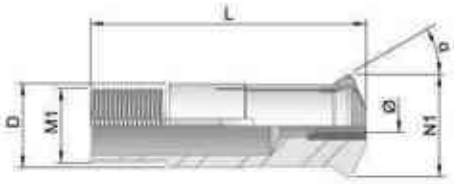


fig.1

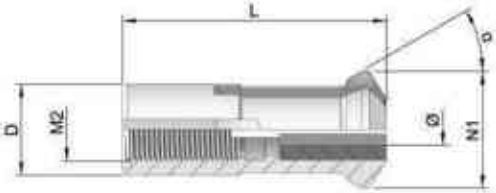
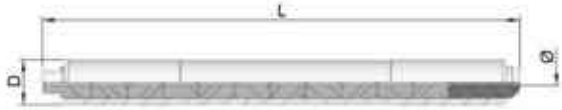


fig.2

Ø maximum passant en métal dur | Maximaler Ø durchgehend Hartmetall | *Maximum Ø through carbide*

N° Serge Meister	D	L	α	N1	M1	Max			fig.
						Ø	●	■	
T45-82	45	82	16°	52	M42 x 1	37.0	32.0	26.0	1
T46-82	46	82	16°	53	M45 x 1	38.0	32.5	26.5	
T46-92	46	92	16°	53	M45 x 1	38.0	32.5	26.5	1
T48-81-C10	48	81	10°	54	M46 x 1	38.0	33.0	27.0	1
T48-81-C30	48	81	30°	56	M48 x 1.25	38.0	33.0	27.0	1
T48-82	48	82	16°	54	M46 x 1	38.0	33.0	27.0	1

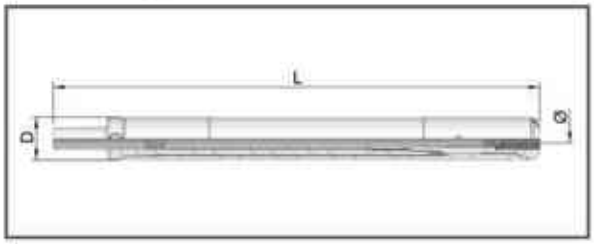
ESCO D2 | ESCO D2 | *ESCO D2*



Ø maximum passant en métal dur | Maximaler Ø durchgehend Hartmetall | *Maximum Ø through carbide*

N° Serge Meister	D	L	Max		
			Ø	⬢	■
ES-D2-10-115	10	115	0.5	0.4	0.35
ES-D2-10-110	10	110	1.0	0.8	0.7
ES-D2-10-107	10	107	5.0	4.0	3.5
ES-D2-10-CNC	10	113	5.0	4.0	3.5

ESCO D2 (ajustable) | ESCO D2 (einstellbar) | *ESCO D2 (adjustable)*



1 ES-AJ-01
2 ES-AJ-02
3 ES-AJ-03
4 ES-AJ-04
5 T7-30

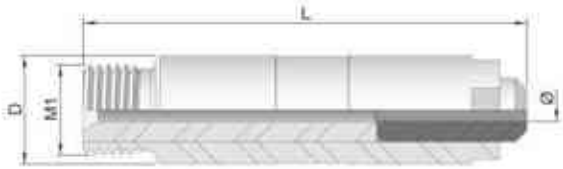
Ø maximum passant en métal dur | Maximaler Ø durchgehend Hartmetall | *Maximum Ø through carbide*

N° Serge Meister	D	L	Max		
			Ø	⬢	■
ES-D2-10-113-AJ	10	113	3.5	3.0	2.5

ESCO D6

ESCO D6

ESCO D6



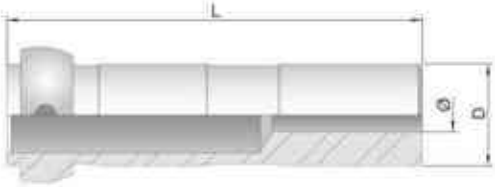
Ø maximum passant en métal dur | Maximaler Ø durchgehend Hartmetall | *Maximum Ø through carbide*

N° Serge Meister	D	L	M1	Max		
				Ø	⬢	■
ES-D6-12-49.2	12	49.2	M10 x 0.75 G	7.0	6.0	5.0

ESCO D6 (à boule)

ESCO D6 (Kugel)

ESCO D6 (ball)



Ø maximum passant en acier | Maximaler Ø durchgehend Stahl | *Maximum Ø through steel*

N° Serge Meister	D	L	Max		
			Ø	⬢	■
ES-D6-12-49-B	12	49	9.0	7.5	6.0

ESCO New Mach

ESCO New Mach

ESCO New Mach

fig. 1

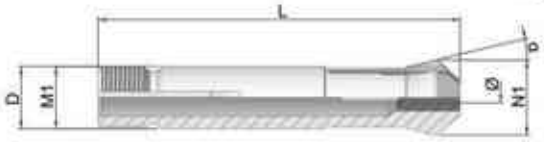
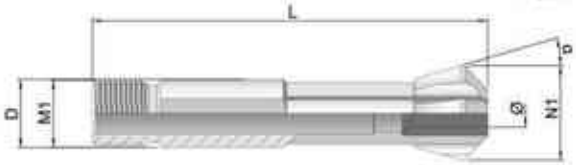


fig. 2



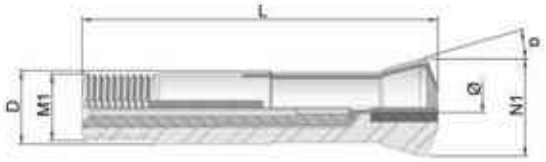
Ø maximum passant en métal dur | Maximaler Ø durchgehend Hartmetall | *Maximum Ø through carbide*

N° Serge Meister	D	L	α	N1	M1	Max			fig.
						Ø	●	■	
ES-MC-10-58-C	10	58	13	12	M10 x 0.75	5.5	4.5	4.0	1
ES-MC-10-58-P	10	58	16	14	M10 x 0.75	5.0	4.5	4.0	2

TOR 4

TOR 4

TOR 4



avec guide laiton | mit Messing-führungs | *with brass guide*

Ø maximum passant en métal dur | Maximaler Ø durchgehend Hartmetall | *Maximum Ø through carbide*

N° Serge Meister	D	L	α	N1	M1	Max		
						Ø	●	■
TOR411G	11	53	16°	1.45	M10 x 0.75	4.0	3.5	3.0
TOR411	11	53	16°	14.5	M10 x 0.75	5.5	4.5	4.0

F (Normal)

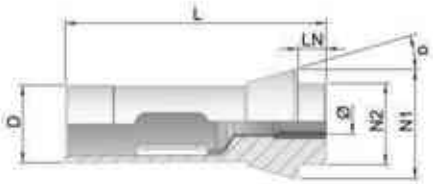


fig.1

F (Normal)

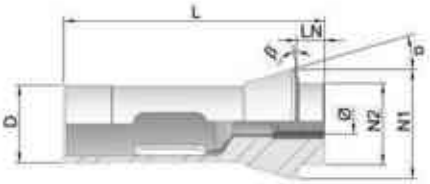


fig.2

F (Normal)

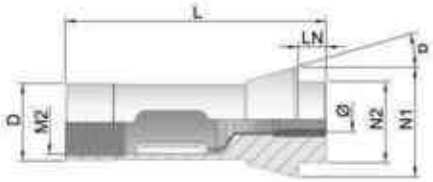


fig.3

Ø maximum passant en métal dur | Maximaler Ø durchgehend Hartmetall | *Maximum Ø through carbide*

N° Serge Meister	D	L	LN	α	β	N1	N2	M2	Max Ø	Max ⬢	Max ■	fig
F4.5-15.45	4.5	17.25	1.8	15°		6.75	4.5		2.3	1.5	1.5	1
F6-27	6	30	3	15°		10	6		3.0	2.5	2	1
F7-23	7	26	3	15°		10.5	7		3.5	3.0	2.5	1
F7-36	7	41	5	16°		11	7		3.5	3.0	2.5	1
F10-42	10	47.5	5.5	20°		15.5	10		5.5	5.0	4.0	1
F10-42.6	10	47.5	4.9	20°	12°	16	10		5.5	5.0	4.0	2
F12-40.2	12	44.5	4.3	15°	5°	18.1	12		7.0	6.0	5.0	2
F12-58	12	64	6	16°	5°	18	12		7.0	6.0	5.0	2
F13-58	13	64	6	16°		19	13		7.0	6.0	5.0	1
F13-58-M	13	64	6	16°		19	13	M11 x 0.75	7.0	6.0	5.0	3
F14-42	14	46	4	13°	12°	18	14		8.0	7.0	5.5	2
F14-40	14	46	6	15°		19.5	15		8.0	7.0	5.5	1
F15-22	15	24	2	15°		19.2	15		9			1
F15-42	15	47	5	20°		22	15		9.0	7.5	6.0	1
F15-58	15	64	6	16°		21	15		9.0	7.5	6.0	1
F16-50	16	55	5	15°		22	16		10.0	8.5	7.0	1
F16-58	16	64	6	16°		21	16		10.0	8.5	7.0	1
F18-58	18	64	6	16°		24	18	M15 x 1	12.0	10.5	8.5	3
F18-60	18	67	7	15°	12°	25	19.5		13.0	11.0	9.0	2
F20-49	20	54	5	15°		26	19		13.0	11.0	9.0	1
F20-55	20	60	5	15°		27	20		14.0	12.0	10.0	1
F20-60	20	67	7	16°		28	21		15.0	13.0	10.5	1
F22-49	22	55	6	15°	10°	30	21		15.0	13.0	10.5	2

F (Normal)

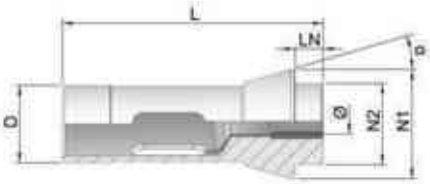


fig.1

F (Normal)

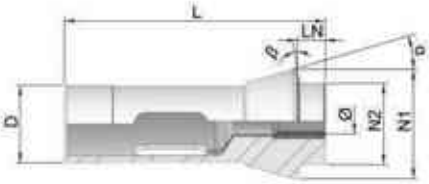


fig.2

F (Normal)

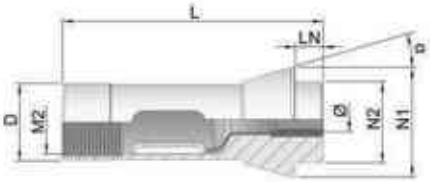


fig.3

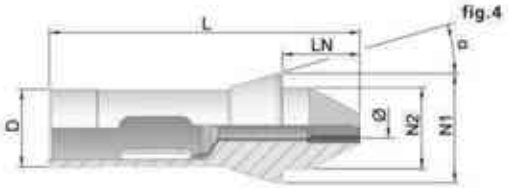
Ø maximum passant en métal dur | Maximaler Ø durchgehend Hartmetall | *Maximum Ø through carbide*

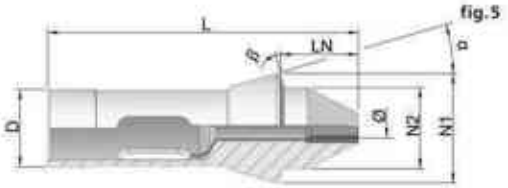
N° Serge Meister	D	L	LN	α	β	N1	N2	Max Ø	Max ●	Max ■	fig.
F22-59	22	66	7	16°		32	25	17.0	14.5	12.0	1
F22-60	22	67	7	13°	12°	28	23.5	16.0	14.0	11.5	2
F24-55	24	62	7	15°		28	22	15.0	13.0	10.5	1
F25-59	25	65	6	15°		34	25	18.0	15.5	12.5	1
F25-67	25	77	10	16°		35	27	20.0	17.0	14.0	1
F26-60	26	67	7	13°	12°	32	27.5	20.0	17.0	14.0	2
F27-64.7	27	72.7	8	15°		38	30	22.0	19.0	15.5	1
F28-63	28	70	7	15°	10°	38	28	21.0	18.0	14.5	2
F30-59	30	65	6	15°		38	32	24.0	21.0	17.0	1
F30-70	30	80	10	16°		42	34	24.0	21.0	17.0	1
F32-59	32	65	6	15°		40	34	25.0	21.5	17.5	1
F32-67	32	75	8	15°	10°	45	34	25.0	21.5	17.5	2
F34-70	34	80	10	16°		44	37	28.0	24.5	20.0	1
F35-63	35	70	7	15°	10°	43	34	25.0	21.5	17.5	2
F35-72	35	80	8	15°	10°	48	38	29.0	25.0	20.5	2
F37-82	37	92	10	16°		47	40	31.0	27.0	22.0	1
F38.08-98.5	38.08	107.5	9	15°	6°	49	38	29.0	25.0	20.5	2
F39-71	39	80	9	15°	12°	46	39.5	31.0	27.0	22.0	2
F42-85	42	94	9	15°	10°	55	42	34.0	29.5	24.0	2
F48-85	48	94	9	15°	10°	60	50	39.0	34.0	27.5	2

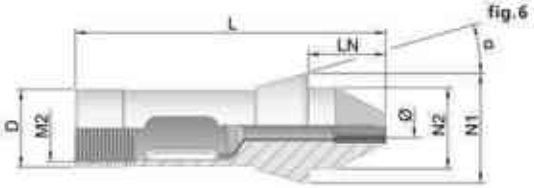
F (Long nez)

F (Lange Nase)

F (Extended nose)







Ø maximum passant en métal dur | Maximaler Ø durchgehend Hartmetall | *Maximum Ø through carbide*

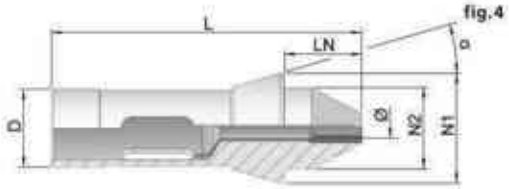
N° Serge Meister	D	L	LN	α	β	N1	N2	M2	Max Ø	Max ●	Max ■	fig
F7-36-10	7	46	10	16°		11	7		3.5	3.0	2.5	4
F8-37.5-8	8	45.5	8	16°		12	8	M6 x 0.5	4.0	3.5	3.0	6
F8-37.5-10	8	47.5	10	16°		12	8	M6 x 0.5	4.0	3.5	3.0	6
F8-37.5-12	8	49.5	12	16°		12	8	M6 x 0.5	4.0	3.5	3.0	6
F10-42-8	10	50	8	20°		15.5	10	M8 x 0.5	5.5	5.0	4.0	6
F10-42-10	10	52	10	20°		15.5	10	M8 x 0.5	5.5	5.0	4.0	6
F10-42-12	10	54	12	20°		15.5	10	M8 x 0.5	5.5	5.0	4.0	6
F10-42-16	10	58	16	20°		15.5	10	M8 x 0.5	5.5	5.0	4.0	6
F12-40.2-10	12	50.2	10	15°	5°	18.1	12		7.0	6.0	5.0	5
F13-58-10	13	68	10	16°		19	13	M11 x 0.75	7.0	6.0	5.0	6
F13-58-12	13	70	12	16°		19	13	M11 x 0.75	7.0	6.0	5.0	6
F15-58-13	15	71	13	16°		21	15	M12 x 0.75	9.0	7.5	6.0	6
F15-58-15	15	73	15	16°		21	15	M12 x 0.75	9.0	7.5	6.0	6
F15-58-20	15	78	20	16°		21	15	M12 x 0.75	9.0	7.5	6.0	6
F16-50-20	16	70	20	15°		22	16		10.0	8.5	7.0	4
F16-58-8	16	66	8	16°		21	16	M14 x 0.75	10.0	8.5	7.0	6
F16-58-13	16	71	13	16°		21	16	M14 x 0.75	10.0	8.5	7.0	2
F16-58-15	16	73	15	16°		21	16	M14 x 0.75	10.0	8.5	7.0	2
F16-58-20	16	78	20	16°		21	16	M14 x 0.75	10.0	8.5	7.0	2
F20-49-13	20	62	13	15°		26	19	M18 x 1	13.0	11.0	9.0	6
F20-49-15	20	64	15	15°		26	19	M18 x 1	13.0	11.0	9.0	6
F20-49-20	20	69	20	15°		26	19	M18 x 1	13.0	11.0	9.0	6
F20-60-15	20	75	15	16°		28	21	M17 x 0.75	15.0	13.0	10.5	6

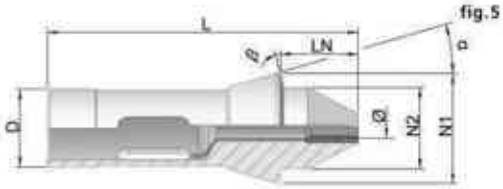
→

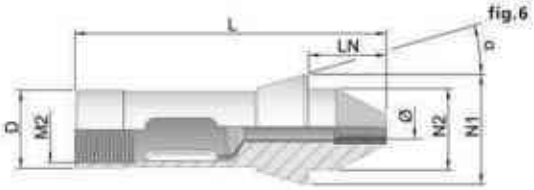
F (Long nez)

F (Lange Nase)

F (Extended nose)







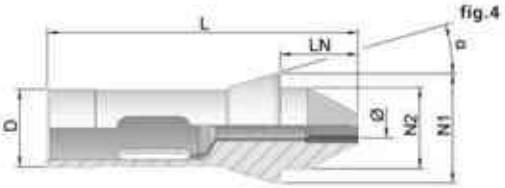
Ø maximum passant en métal dur | Maximaler Ø durchgehend Hartmetall | *Maximum Ø through carbide*

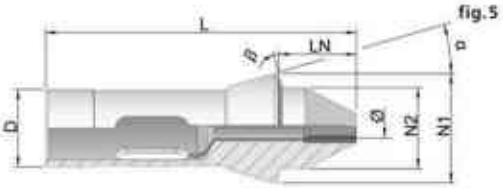
N° Serge Meister	D	L	LN	α	β	N1	N2	M2	Max Ø	Max ●	Max ■	fig
F20-60-20	20	80	20	16°		28	21	M17 x 0.75	15.0	13.0	10.5	6
F22-49-15	22	64	15	15°	10°	30	21		15.0	13.0	10.5	5
F22-49-20	22	69	20	15°	10°	30	21		15.0	13.0	10.5	5
F24-55-15	24	70	15	15°		28	22		15.0	13.0	10.5	4
F24-55-20	24	75	20	15°		28	22		15.0	13.0	10.5	4
F25-67-18	25	85	18	16°		35	27	M 22 x 1	20.0	17.0	14.0	6
F25-67-25	25	92	25	16°		35	27	M 22 x 1	20.0	17.0	14.0	6
F27-65-8	27	73	8	15°		38	30		22.0	19.0	15.5	4
F27-65-18	27	83	18	15°		38	30		22.0	19.0	15.5	4
F27-65-25	27	90	25	15°		38	30		22.0	19.0	15.5	4
F28-63-20	28	83	20	15°	10°	38	28		21.0	18.0	14.5	5
F28-63-25	28	88	25	15°	10°	38	28		21.0	18.0	14.5	5
F30-59-20	30	79	20	15°		38	32		24.0	21.0	17.0	4
F32-67-15	32	82	15	15°	10°	45	34		25.0	21.5	17.5	5
F32-67-20	32	87	20	15°	10°	45	34		25.0	21.5	17.5	5
F32-67-25	32	92	25	15°	10°	45	34		25.0	21.5	17.5	5
F35-63-27	35	90	27	15°	10°	43	34		25.0	21.5	17.5	5
F35-72-28	35	100	28	15°	10°	48	38		29.0	25.0	20.5	5
F37-82-20	37	102	20	16°		47	40		31.0	27.0	22.0	4
F37-82-25	37	107	25	16°		47	40		31.0	27.0	22.0	4
F37-82-30	37	112	30	16°		47	40		31.0	27.0	22.0	4
F38.08-98.5-24.5	38.08	123	24.5	15°	6°	49	38		29.0	25.0	20.5	5
F42-85-20	42	105	20	15°	10°	55	42		34.0	29.5	24.0	5

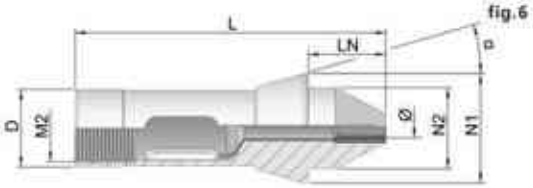
F (Long nez)

F (Lange Nase)

F (Extended nose)







Ø maximum passant en métal dur | Maximaler Ø durchgehend Hartmetall | *Maximum Ø through carbide*

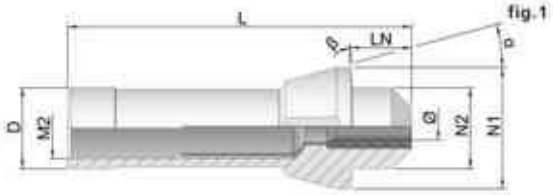
N° Serge Meister	D	L	LN	α	β	N1	N2	Max Ø	Max ●	Max ■	fig.
F42-85-20	42	105	20	15°	10°	55	42	34.0	29.5	24.0	5
F42-85-25	42	110	25	15°	10°	55	42	34.0	29.5	24.0	5
F48-85-28	48	113	28	15°	10°	60	50	39.0	34.0	27.5	5

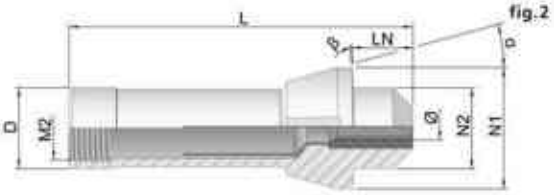
←

F Wahli

F Wahli

F Wahli





Ø maximum passant en métal dur | Maximaler Ø durchgehend Hartmetall | *Maximum Ø through carbide*

N° Serge Meister	D	L	LN	α	β	N1	N2	M2	Max Ø	Max ●	Max ■	fig
WA12-9	12	51	9	15°	5°	18	12	8.0 ±0.01	7.0	6.0	5.0	1

W (Normal)

W (Normal)

W (Normal)

fig.1

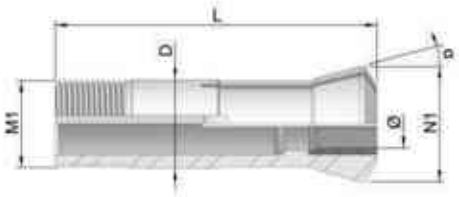


fig.2

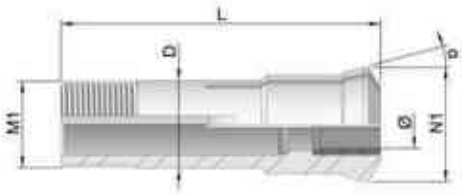
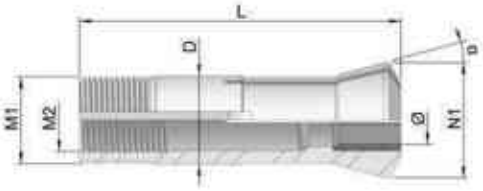


fig.3



Ø maximum passant en métal dur | Maximaler Ø durchgehend Hartmetall | *Maximum Ø through carbide*

N° Serge Meister	D	L	α	N1	M1	M2	Max Ø	Max ●	Max ■	fig.
W12	12	46	15°	16	Ø 11.75 x		7.0	6.0	5.0	1
W15	15	58.3	15°	20.2	Ø 14.75 x		10.0	8.5	7.0	1
W20	20	73	15°	26.3	Ø 19.7 x		15.0	13.0	10.5	1
W20-R	20	73	15°	26.3	Ø 19.7 x		20.0	17.0	14.0	2
W25	25	97.6	15°	33.7	Ø 24.7 x		18.0	15.5	12.5	1
W31.75	31.75	87	10°3'	37.4	Ø 31.4 x	Ø 26.441 x	25.0	21.5	17.5	3

W (Long nez)

W (Lange Nase)

W (Extended nose)

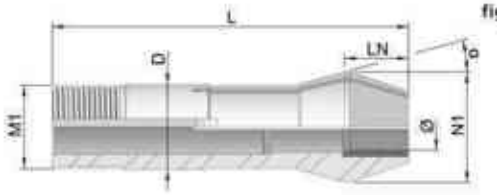


fig.4

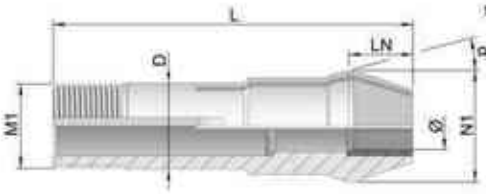


fig.5

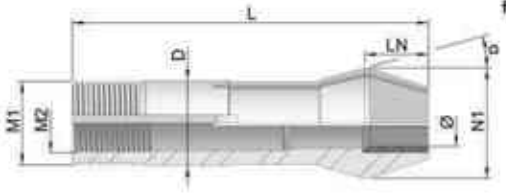


fig.6

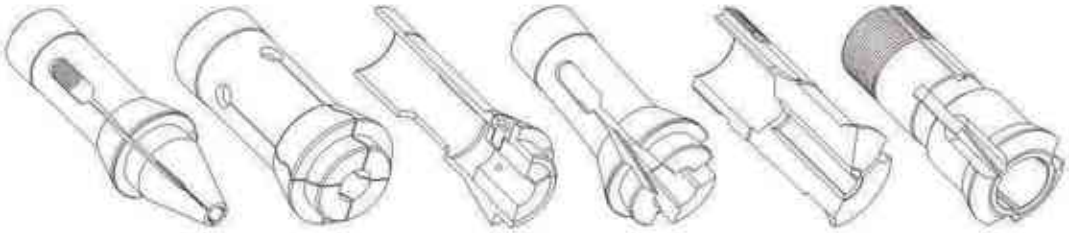
Ø maximum passant en métal dur | Maximaler Ø durchgehend Hartmetall | *Maximum Ø through carbide*

N° Serge Meister	D	L	LN	α	N1	M1	M2	Max ø	Max ●	Max ■	fig
W10-8.6	10	49.6	8.6	15°	14	Ø 9.83 x		6.0	5.0	4.0	4
W12-8.8	12	52	8.8	15°	16	Ø 11.75 x		7.0	6.0	5.0	4
W15-12	15	67	12	15°	20.2	Ø 14.75 x		10.0	8.5	7.0	4
W15-15	15	73.5	15	15°	20.2	Ø 14.75 x		10.0	8.5	7.0	4
W15-20	15	78.5	20	15°	20.2	Ø 14.75 x		10.0	8.5	7.0	4
W20-15.5	20	84.5	15.5	15°	26.3	Ø 19.7 x		15.0	13.0	10.5	4
W20-15.5-R	20	84.5	15.5	15°	26.3	Ø 19.7 x		20.0	17.0	14.0	5
W20-25.5	20	94.5	25.5	15°	26.3	Ø 19.7 x		15.0	13.0	10..5	4
W25-19.7	25	112.2	19.7	15°	33.7	Ø 24.7 x		18.0	15.5	12.5	4
W25-19.7-R	25	112.2	19.7	15°	33.7	Ø 24.7 x		18.0	15.5	12.5	5
W25-19.7-M	25	112.2	19.7	15°	33.7	Ø 24.7 x	M14	12.0	10.5	8.5	6
W31.75-25.4	31.75	108.7	25.4	10°3'	37.4	Ø 31.4 x	Ø 26.441 x	25.0	21.5	17.5	6

Options

Optionen

Options



Options | Optionen | *Options*

Insert ou complet bronze | Einfügen oder vervollständigen Bronze | *Insert or complete bronze*

Traitement de surface | Oberflächenbehandlung | *Surface traitement (coating)*

TiN | TiN | *TiN*

Traitement de surface | Oberflächenbehandlung | *Surface traitement (coating)*

CROMVIc ® | CROMVIc ® | *CROMVIc ®*

Options | Optionen | *Options*

Traitement de surface | Oberflächenbehandlung | *Surface traitement (coating)*

MOVIC ® | **MOVIC ®** | ***MOVIC ®***

Sur demande
Auf Anfrage
Upon request

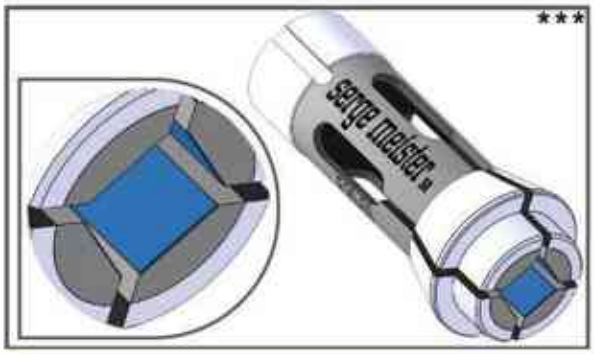
Ø 0.12 - 0.49 mm

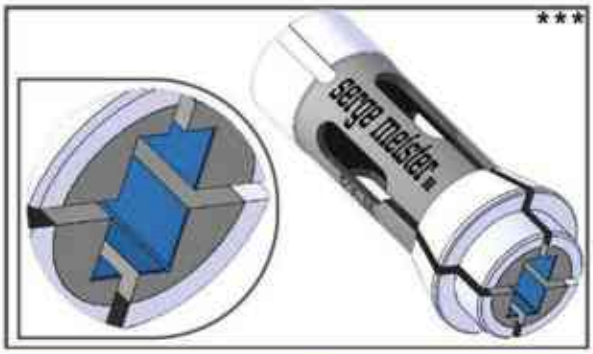
Petits Ø | Kleine Ø | *Small Ø*

Long métal dur | Lang Hartmetall | *Long carbide*

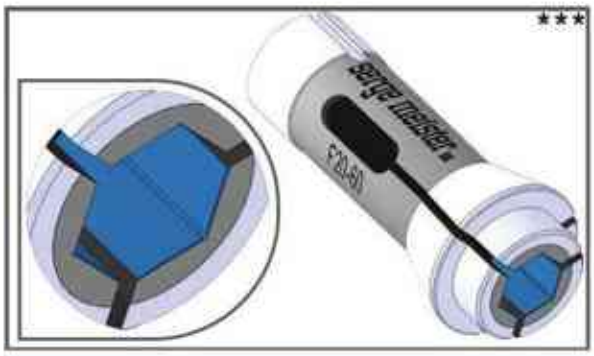
Longueurs standard : 28, 30, 35, 40mm | **Standard-Längen : 28, 30, 35, 40mm** | ***Standard lengths : 28, 30, 35, 40mm***

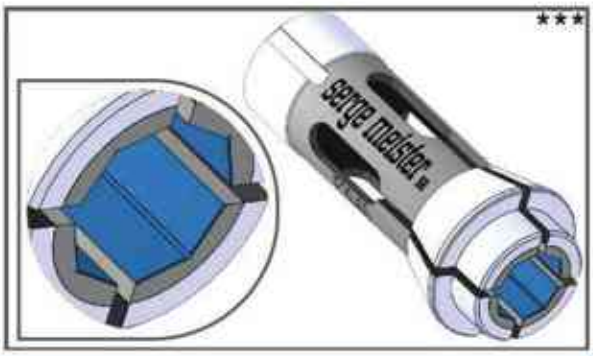
Options | Optionen | *Options*



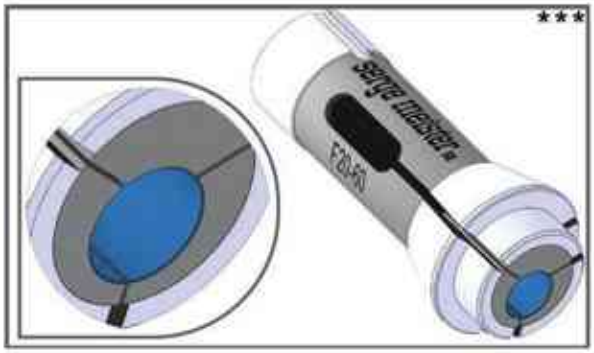


Alésage carré, rectangle | 4-kant, Rechteck Bohrung | *Square, rectangle bore*





Alésage 6, 8 pans | 6, 8-kant Bohrung | *hex, octa bore*



Alésage excentrique | Exzentrische Bohrung | *Excentric bore*

Options | Optionen | *Options*

Longueur du nez hors standard | Nasenlänge | *Nose length*

Cône métal dur | Hartmetall - Konus | *Carbide cone*

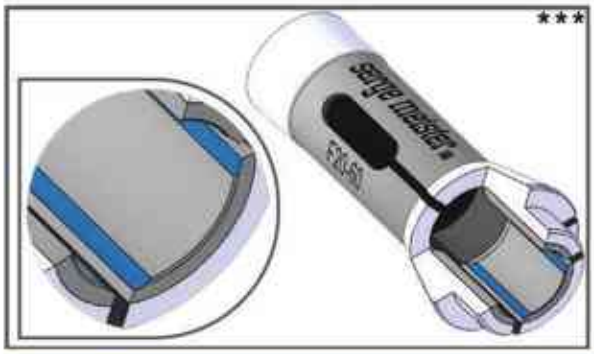
Disponible pour la plupart des références.

Verfügbar für fast alle Büchsen.

Available for most bush types according to application.

Angle vif | Ohne Fase | *Sharp edge*

Options | Optionen | *Options*



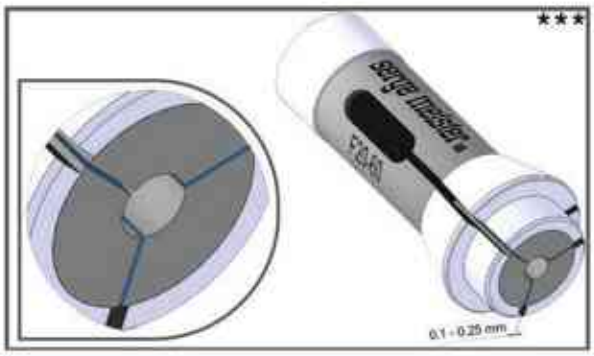
Anglage fentes | Fase an Schlitze | *Relieved slots*

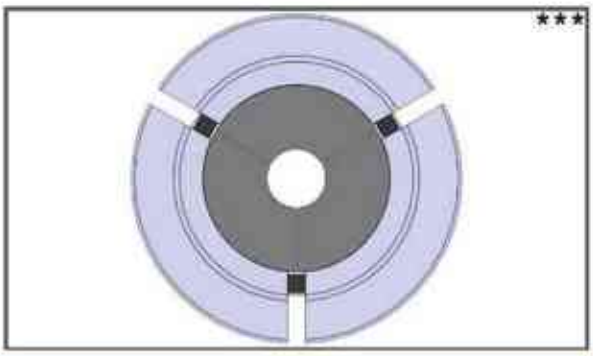
Fentes "Wave" | "Wave" Schlitze | *"Wave" Slots*

Fentes "Zigzag" | "Zigzag" Schlitze | *"Zigzag" Slots*

Options | Optionen | *Options*

Entrée(s) de clavette(s) | Nute | *Keyway*





Fentes fines | Feine Schlitze | *Narrow slots*

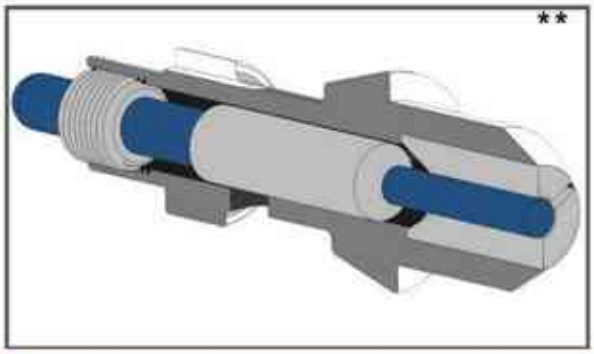
Alésages rainurés, striés | Bohrung mit Querrillen | *Grooved and serrated bore*

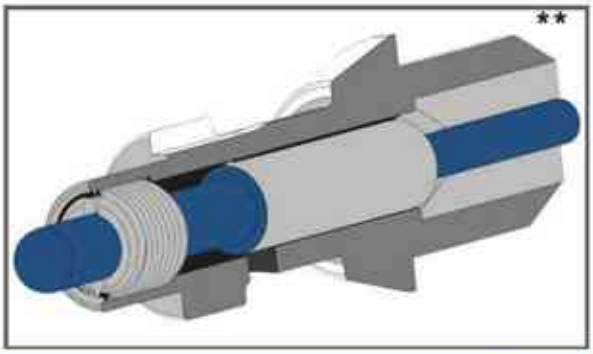
Options | Optionen | *Options*

Alésages rainurés, striés | Bohrung mit Querrillen | *Grooved and serrated bore*

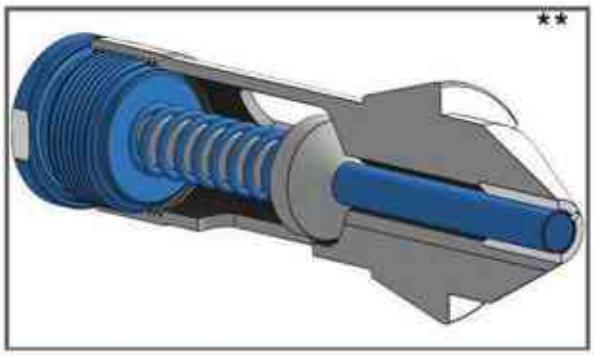
Ouverture de la pince | Oeffnung der Zangen | *Opening of collets*

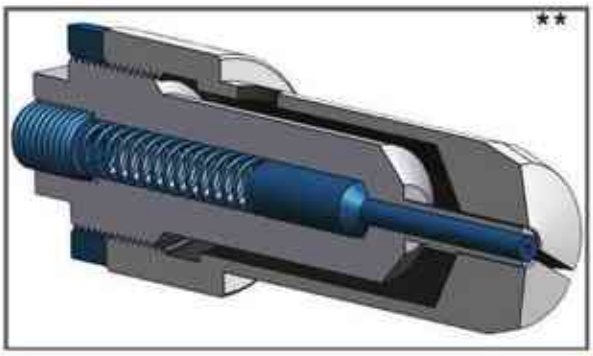
Options supplémentaires | Zusatz-Optionen | *Additional options*



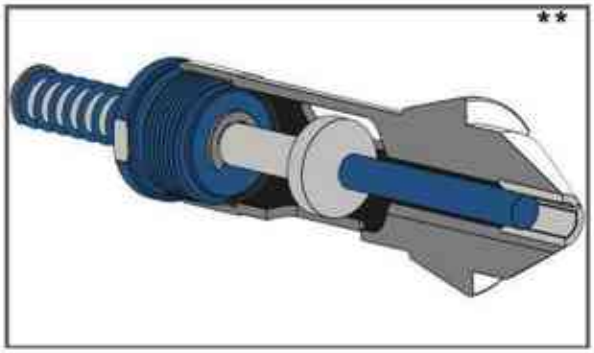


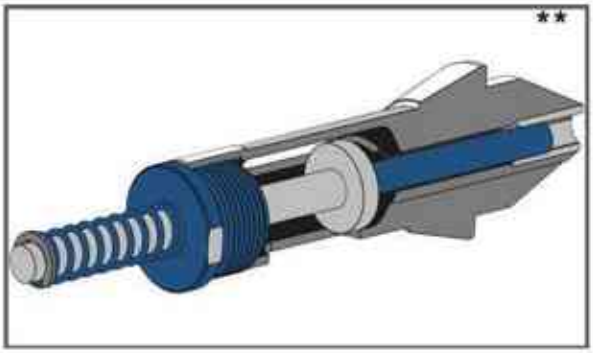
Ejecteur | Ausswerfer | *Ejector*





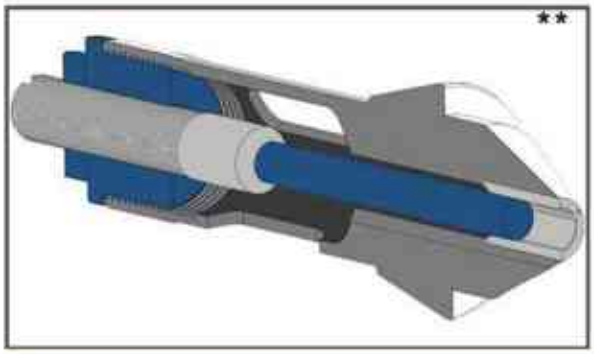
Ejecteur Type A | Ausswerfer Typ A | *Ejector Type A*

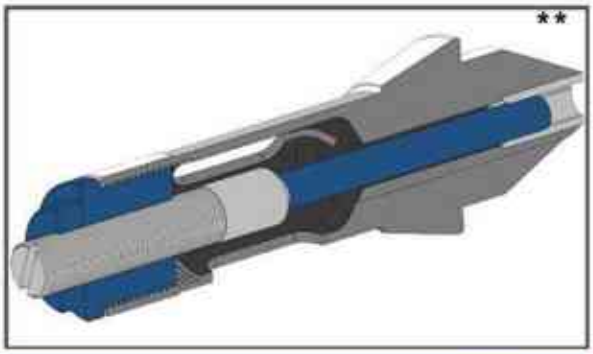




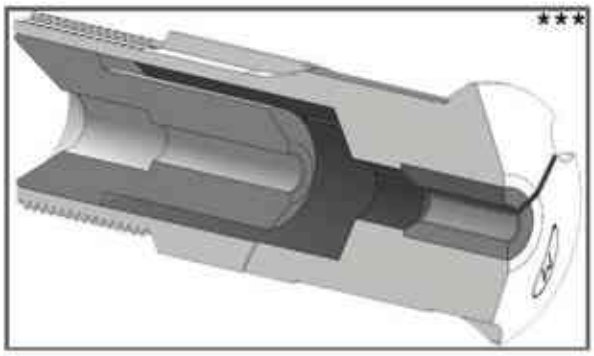
Ejecteur Type B | Ausswerfer Typ B | *Ejector Type B*

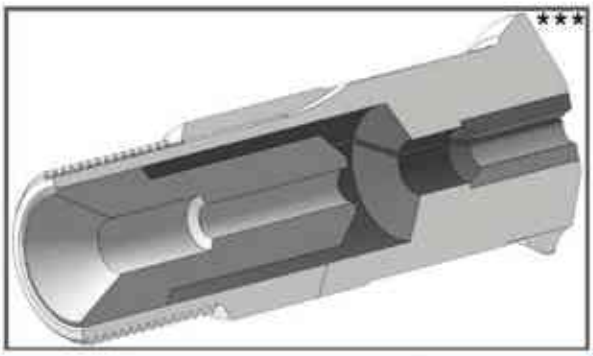
Options supplémentaires | Zusatz-Optionen | *Additional options*



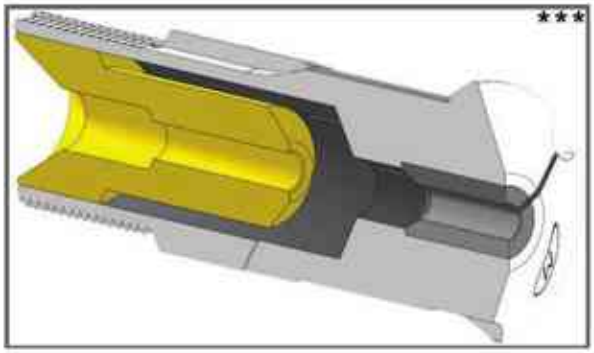


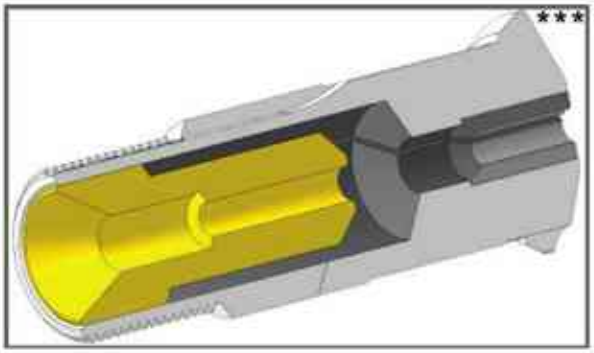
Butée | **Anschlag** | ***Back stops***





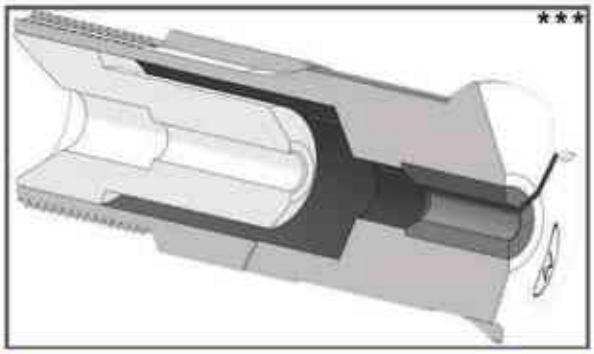
Guide de précision acier | **Präzisionsführung Stahl** | ***Precision guide steel***

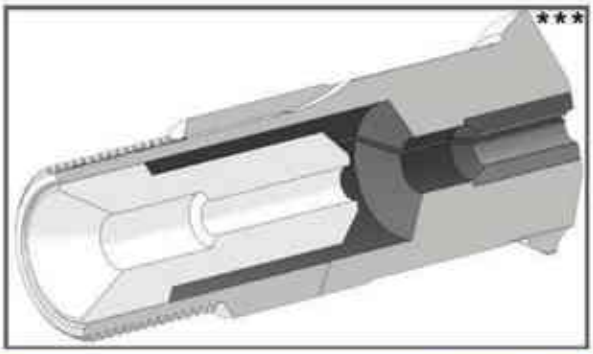




Guide laiton | **Messing-Führung** | ***Brass guide***

Options supplémentaires | Zusatz-Optionen | *Additional options*





Guide plastique | Kunststoffführung | *Plastic guide*

Bechler

Bechler

Bechler

André Bechler SA
Moutier

Fabrique de machines

Type de machine	Canon	Pince broche principale
A-4	T9-44 / T9-50	F10/117B (111E)
A-7	T12-50-M10.075 /T11-50 / T12-50-M12.1	F10-42.6
A-10 / AR-10	T12-50-M10.075 /T11-50 / T12-50-M12.1	F14-42
BR-12 / BR-16 / BR-20	T22-68-M19.1 / T28-81 / T32-71 /	

Citizen

Citizen

Citizen

CITIZEN

Type de machine	Canon	Pince broche principale
A-20	T28-82-M25.1	F25-67
B-12	T18-59-M16.1	F16-58
B-20	T28-82-M25.1	F25-67
C-16	T24-61	F20-60
E-16	T24-61	F25-67
E-20	T32-71	F25-67
E-25	T34-87.5	F30-70
E-32	T42-82-C16	F37-82
F-12	T18-59	F16-58
F-16	T24-61	F20-60
F-20	T32-71	F25-67
F-25	T34-87.5	F30-70
K-12	T18-59	F16-58
K-16	T24-61	F25-67
L-10 I	T16-58	F15-58
L-10 Watch	T9-44	F15-58

Citizen

Citizen

Citizen

CITIZEN

Type de machine	Canon	Pince broche principale
L-12	T18-59	F16-58
L-16	T24-61	F25-67
L-20	T28-82-M25.1	F25-67
L-25	T34-87.5	F30-70
L-32	T42-82-C16	F37-82
M-12	T18-59	F16-58
M-16	T24-61	F20-60
M-20	T28-82-M25.1	F25-67
M-32	T42-82-C16	F37-82
MSL-12	T18-59	F16-58
R-04	T9-44	F8-37.5
R-07	T11-53	F15-58

←

Hanwha

Hanwha

Hanwha

Hanwha

Type de machine	Canon	Pince broche principale
SL-12 S/H	T18-59-M16.1	F15-58 / F16-58
SL-16 S/H	T22-68-M22.1	F22-49
SL-20 S	T28-82-M25.1	F25-67
SL-26 HP II	T34-87.5	F32-67
SL-26 S/H	T34-87.5	F32-67
SL-32 HP II	T42-82-C16	F37-82
SL-32 HPD	T42-82-C16	F37-82

Hanwha

Hanwha

Hanwha

Type de machine	Canon	Pince broche principale
SL-32 S/HE	T42-82-C16	F37-82
SL-35 HP	T45-82	?
STL-32H	T42-82-C16	F37-82
XD-07	T11-53	F10-42
XD-12 H	T18-59-M16.1	F15-58
XD-12 J	T18-59-M16.1	F16-58
XD-16 H	T22-68-M22.1	F22-49
XD-20 H	T28-82-M25.1	F25-67
XD-20 M	T28-82-M25.1	F25-67
XD-20 N	-	F25-67
XD-20 V	T28-82-M25.1	F25-67
XDI-20	T28-82-M25.1	F25-67
XD-26 H	T34-87.5	F32-67
XD-32 H	T42-82-C16	F37-82
XD-35	T45-82	T45-82??
XD-38	- JBS	F48-85
XP-12 S	T18-59-M16.1	F15-58
XP-16 S	T22-68-M22.1	F22-49
XP-20 S	T28-82-M25.1	F25-67
XP-26 S	T34-87.5	F32-67

MANURHIN K'MX

MANURHIN K'MX

MANURHIN K'MX

Type de machine	Canon	Pince broche principale
Compact	T24-61	F20-49
First 226/326C	T22-68 / T25-81 / T34-87.5	F20-49
KMX-20/220	T25-81 / T22-68	F25-67 / F32-67
KMX-26/226	T22-68 / T25-81 / T34-87.5	F25-67 / F32-67
Mirabel PM32	T22-68 / T25-81 / T42-82	F25-67 / F42-85
OM-98/KL-32	T42-82	
Swing-13	T18-59	
Swing-20	T25-81	
Swing-26	T22-68 / T34-87.5	F38.08-98.5
Swing-32	T22-68 / T25-81 / T34-87.5 / T42-82	F42-85
Traminer-13	T18-59	F18-60
Traminer-16	T22-68	F20-60
Traminer-20	T22-68 / T25-81	F25-67
Twin-13	T22-68	F20-49
Twin-20	T22-68 / T25-81	F20-49
XL-32	T42-82	F42-85
XL-36	T48-81	F42-85 / F48-85

Nexturn

Nexturn

Nexturn

Type de machine	Canon	Pince broche principale
SA-12A	T18-59-M16.1	F16-58
SA-12B	T18-59-M16.1	F16-58

Nexturn

Nexturn

Nexturn

NEXTURN
SWISS TURN LEADER

Type de machine	Canon	Pince broche principale
SA-18A	T28-82-M25.1	F25-67
SA 20B	T28-82-M25.1	F25-67
SA-20D	T28-82-M25.1	F25-67
SA-20E	T28-82-M25.1	F25-67
SA 20PII	T28-82-M25.1	F25-67
SA 20PYII	T28-82-M25.1	F25-67
SA 20XII	T28-82-M25.1	F25-67
SA-26D	T34-87.5	F32-67
SA-26E	T34-87.5	F32-67
SA 26PII	T34-87.5	F32-67
SA 26PYII	T34-87.5	F32-67
SA 26XII	T34-87.5	F32-67
SA-32D	T42-82-C16	F37-82
SA-32E	T42-82-C16	F37-82
SA 32B	T42-82-C16	F37-82
SA 32PII	T42-82-C16	F37-82
SA 32PYII	T42-82-C16	F37-82
SA 32XII	T42-82-C16	F37-82
SA 32XIII	T42-82-C16	F37-82
SA-38E	T46-92	F42-85
SA 38PII	T46-92	F42-85
SA 38PYII	T46-92	F42-85
SA 38XIII	T46-92	F42-85

Petermann

Petermann

Petermann

Petermann

Type de machine	Canon	Pince broche principale
P-3	T7-30 / T7-29	F7-36
P-4	T9-44 / T9-50 / T9-26	F8-37.5
P-7	T12-50-M10.075 / T12-50-M12.1	F10-42
P-7R	T12-50-M10.075 / T12-50-M12.1	F15-42 / F16-50
P-16/P-16R	T22-68-M19.1 / T28-81 / T32-71 / T24-61	F22-59
P-20R/P-25	T32-71 / T40-72-M40.1	F32-59
10-H5	T16-58 / T20-55 / T22-68-M19.1	F16-50 / F20-55

Star

Star

Star

Type de machine	Canon	Pince broche principale
ECAS-20	T28-82-M25.1	F25-67
ECAS-32	T42-82-C16	F37-82
JNC-10	T16-58 / ev.T16-59	F15-58
JNC-16	T22-68-M22.1	F20-60
JNC-32	T42-82-C16	F37-82
KJR-16	T22-68-M22.1	F20-60
KJR-25	-	F30-70
KNC-20	T28-82-M25.1	F25-67
KNC-32	T42-82-C16	F37-82
RNC-10	T16-58	F15-58
RNC-16	T22-68-M22.1	F20-60
SA-12/16	T22-68-M22.1	F20-60

Star

Type de machine	Canon	Pince broche principale
SB-12	T18-59-M16.1	F16-58
SB-16	T22-68-M22.1	F20-60
SB-20	T28-82-M25.1	F25-67
SB-20RG	T28-82-M25.1	F25-67
SE-16	T22-68-M22.1	F20-60
SF-25	-	F37-82
SH-7	T16-58	F15-58
SH-12	T21-57.4	F20-60
SH-16	T22-68-M22.1	F20-60
SI-12 NP	T22-68-M22.1	F20-60
SNC-15	T22-68-M22.1	F20-60
SR-10J	T16-58 (év. T16-59)	F15-58
SR-16	T22-68-M22.1	F20-60
SR-20J	T28-82-M25.1	F25-67
SR-20JN	-	F25-67
SR-20R	T28-82-M25.1	F25-67
SR-20RIV -/B	T28-82-M25.1	F25-67
SR-32	T42-82-C16	F37-82
SR-32J	T42-82-C16	F37-82
SR-32JN	-	F37-82
SR-32JII-A / B	T42-82-C16	F37-82
SR-38-A / B	T42-82-C16	F37-82
SST-16	T22-68-M22.1	F20-60
ST-20	T28-82-M25.1	F25-67
ST-38	T48-82	F48-85
SV-12	T22-68-M22.1	F20-60
SV-20	T28-82-M25.1	F25-67
SV-20R	T28-82-M25.1	F25-67
SV-32	T42-82-C16	F37-82
SV-38R	T48-82	F48-85

Star

Type de machine	Canon	Pince broche principale
SW-12RII	T18-59-M16.1	F16-58
SW-20	T28-82-M25.1	F25-67
SW-7	T11-53	F15-58
SW-7R	T16-58 (év. T16-59)	F15-58
VNC-12	T21-57.4	F20-60
VNC-20	T28-82-M25.1	F25-67
VNC-32	T42-82-C16	F37-82

Tornos

Type de machine	Canon	Pince broche principale
CT-20	T28-82	F25-67
DECO-7	T11-53	F10-42
DECO-8 SP	-	W15
DECO-10	T16-59	F13-58 (F10-42)
DECO-13	T24-61	F20-49 (F13-58/F15-58/F16-58)
DECO-20	T28-81/T34-87.5	F25-67 (F30-59/F20-60)
DECO-26 (32)	T34-87.5 / T42-82-C16	F37-82/(F30-59/F25-67)
DELTA-12	T24-61	F20-60/F13-58/F15-58
DELTA-12 version III	T26-77 / T24-61	F20-60/F13-58/F15-58
DELTA-20	T28-81 / T26-77	F25-67 / F13-58
DELTA-20 version III	T28-81 / T26-77	F25-67 / F13-58
DT26	T34-87.5	F25-67 / F30-59

Tornos | Tornos | *Tornos*

TORNOS

Type de machine	Canon	Pince broche principale
ENC-74/75	T16-59	F13-58
ENC-163/164/167	T24-61/T28-81/T16-59	F25-67/F20-60/F15-58
ENC-262/264	TOP-200	F30-59
EVODECO-20	T34-87.5 / T28-81	F25-67 / F30-59
EVODECO-32	T42-82	F25-67 / F30-59 / F37-82
GAMMA-20/6	T26-77 / T28-81	F25-67
GT-13	T18-59-M16.1	F13-58 / F16-58
GT-26	T34-87.5	F25-67 / F30-59
GT-32	T42-82	F37-82
EVODECO-10	T16-59	F13-58 /F15-58 / F16-58 / F20-49 /
EVODECO-16	T24-61	F13-58 / F15-58 / F16-58 / F20-49 /
M-4	T9-50 / T9-44 / MAG-B-10	F8-37.5
M-7	T11-53 / MAG-B-13 / T12-50-M12.1	F10-42
MS-7	T18-59 / MAG-B-18	F13-58 / F15-58
MICRO-7	T11-53	F13-58
MICRO-8	-	W15
MR-28/32	T42-82-C16 / T44-87	F37-82
NAT-125	T16-59	F16-58
R-10	T18-59 / T16-59 / MAG-B-18	F15-58 / F16-58
R-16	T22-68	F20-60
RR-20	T22-68 / MAG-B-36	F25-67
SIGMA-8	-	W15
SIGMA-20	T34-87.5 / T28-81	F30-59/F25-67/F20-60
SIGMA-32	T42-82-C16/T34-87.5	F37-82/F30-59/F25-67
ST-26	T34-87.5	F20-49 / F25-67 / F26-60 / F30-59
Swiss NANO	T11-53	F8-37.5 / F10-42 / F13-58
Swiss NANO 7	T11-53	F13-58 / F10-42
TOP-100	TOP-100	F15-58/F16-58
TOP-200	TOP-200	F25-67/F30-59

Tornos Multibroches

Tornos Multibroches

Tornos Multibroches

TORNOS

Type de machine	Pince broche	Pince contre-broche	Pince de ravitaillement
MultiAlpha 6x32	-	PR35.5-80	
MultiAlpha 8x20	B34-90	PR28-73	
MultiAlpha 8x28	-	PR35.5-80	
MultiDeco 20/6	B34-90	PR28-73	
MultiDeco 20/6b	B34-90	PR28-73	
MultiDeco 20/8	B34-90	PR28-73	
MultiDeco 20/8b	B34-90	PR28-73	
MultiDeco 26/6	-	PR35.5-80	
MultiDeco 32/6i	-	PR35.5-80	
MultiSigma 8x20	B34-90	PR28-73	
MultiSigma 8x28	-	PR35.5-80	
MultiSwiss 6x16	M523-75	F20-49	F16-58-8
MultiSwiss 6x32	DC43-68	F37-82	PR35.5-80
MultiSwiss 8x26	DC35-60	F37-82	PR35,5-80
SAS 16.6	W25-94	F16-58-8	

Tsugami

Tsugami

Tsugami

TSUGAMI SWISS

Type de machine	Canon	Pince broche principale
B-32	T41-54	F37-82
B007E	T11-53	F10-42
B074E	T11-53	F10-42
B012AE/CE	T24-61	F22-49

Tsugami | Tsugami | *Tsugami*

TSUGAMI SWISS

Type de machine	Canon	Pince broche principale
B018AE/CE	T24-61	F22-49
B020AE/CE	T28-81	F25-67
B0123E/4E/5E	T24-61	F22-49
B0126	T26-77	F22-49
B0128WE	T24-61	F22-49
B0203E/4E/5E	T28-81	F25-67
B0206	T26-77 / T28-81	F25-67
B0208WE	T28-81	F25-67
B0265E/6E	T34-87.5	F30-59
B038ME	T48-81-C10	F48-85
B038TE	T42-82-C16	F37-82
B0325E/6E	T42-82-C16	F37-82
B0385E, Bar Ø 32	T42-82-C16	F37-82
B0385E, Bar Ø 38	T48-81-C10	
BH20E/ZE	T28-81	F25-67
BH38E, Bar Ø 32	T42-82-C16	F37-82
BH38E, Bar Ø 38	T48-81-C10	
BN12E	T24-61	F22-49
BN20E	T28-81	F25-67
BS 007	T11-53	F10-42
BS12AE/BE/CE	T24-61	F22-49
BS125HE/6HE	T24-61	F22-49
BS18AE/BE/CE	T24-61	F22-49
BS20AE/BE/CE	T28-81	F25-67
BS32CE	T41-54	F37-82
BS205HE/6HE	T28-81	F25-67
BS26AE/BE/CE	T34-87.5	F32-67
BU20E	T28-81	F25-67
BU26E	T34-87.5	F32-67
BU/MU 26	T34-87.5	F32-67

Tsugami | Tsugami | *Tsugami*

TSUGAMI SWISS

Type de machine	Canon	Pince broche principale
BU/MU 38	T48-81-C10	F37-82
BW07E	T11-53	F10-42
BW12E	T24-61	F22-49
BW20E	T28-81	F25-67
BW127E/8E/8ZE/9ZE	T24-61	F22-49
BW207E/8E/8ZE/9ZE	T28-81	F25-67
H205E/6E	T28-81	F25-67
HS20	T28-81	F25-67
HS26	T34-87.5	F30-59
HS32	T42-82-C16	F37-82
HS38MH	T48-81-C10	F48-85
HS38MH/5AX	T48-81-C10	F37-82
HS207	T28-81	F25-67
NP-4W	T11-53	F10-42
NT-NP 11	T18-59	F15-58
NT-NP 16	T22-68	F22-49
NT-NP 16-II	T24-61 / T22-68	F22-49
NT-NP 17	T24-61 / T22-68	F22-49
NT-NP 20	T32-71	F25-67
NT-NP 20-II	T28-81	F25-67
NT-NP 32	T42-82-C16	F37-82
P01E	T11-53	F10-42
P03E	T11-53	F10-42
P014E/HE	T11-53	F10-42
P034E/HE	T11-53	F10-42
S20	T28-81	F25-67
S205E/6E	T28-81	F25-67
TMU1E, Bar Ø 32	T42-82-C16	F37-82
TMU1E, Bar Ø 38	T48-81-C10	F48-85

Tolérances alésages

Bohrungs-Toleranzen

Run out tolerance

N° Serge Meister	Ø min	Ø max	T
Normal	0.12	39.00	0.008 - 0.012
UP	0.12	39.00	≤ 0.005

MICRO TAPS – HSS

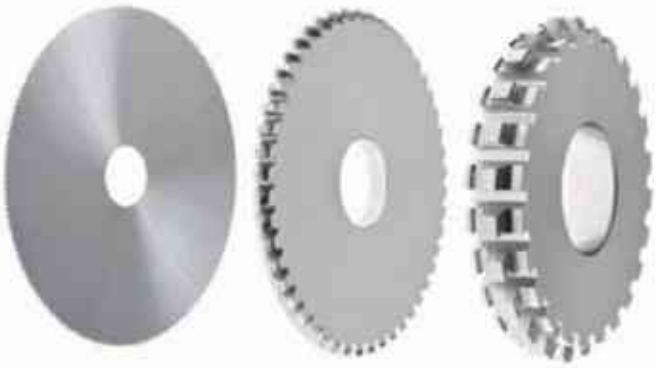
- Bottoming (Style #18) & Centering Taps – 2 Flute (Style #11) and 3 Flute (Style #12)
- Sizes .30UNM – 1.60UNM, 000-120, 00-96, 00-90, 0-80.

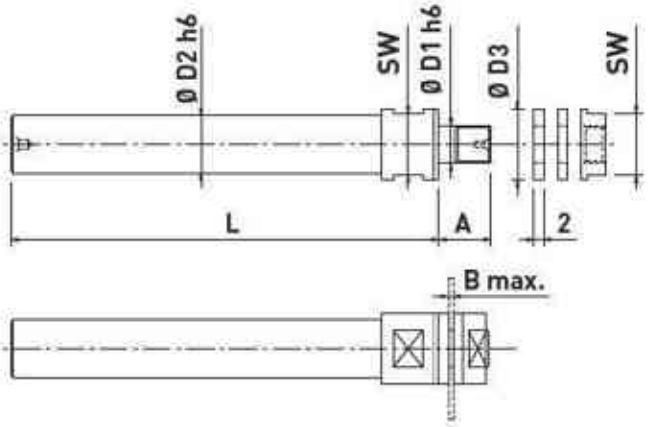
MICRO DRILLS – HSS & CARBIDE

- Cobalt HSS (Style #100), Left Hand and Right Hand from .270mm
- Solid Carbide Drills (Style #225), Left Hand and Right Hand from .270mm
- Special Sizing Available Upon Request

CARBIDE SAWS

- Fine Tooth Carbide Saws by Standard
- Thickness Available from .10mm
- Stock Saws in 5mm Increments
- Standard OD and ID Sizing:
- 15mm OD x 5 mm ID
- 20mm OD x 5mm ID
- 25mm OD x 8mm ID
- 25mm OD x 8mm ID
- 30mm OD x 8mm ID
- 40mm OD x 10mm ID
- 50 mm OD x 10mm ID
- 45° and Full Radius Carbide Saws Available Upon Request
- Special OD and ID Sizing Available Upon Request
- Teeth Specification Available Upon Request





Tasseaux
Fräsdorne
Milling arbors

2810 R
2811 R

SWISS MADE

Tasseaux pour rotation à droite (serrage avant avec filet à droite) Fräsdorne für Drehrichtung rechts (Spannung von vorne mit Rechtsgewinde) Arbors for right hand rotation (front clamping with right hand thread)							
Art. N°	D1 h6	D2 h6	D3	L	A	SW	B
2810-5-6	5.00	6	10	70	9	8	6
2810-5-10	5.00	10	10	80	9	8	6
2810-6-10	6.00	10	12	80	9.5	10	6
2810-8-10	8.00	10	15	80	10	13	6
2810-8-12	8.00	12	15	90	10	13	6
2810-10-6	10.00	6	18	80	10.5	15	6
2810-10-10	10.00	10	18	80	10.5	15	6
2810-10-16	10.00	16	18	100	10.5	15	6
2810-13-16	13.00	16	22	110	11	19	6
2810-16-20	16.00	20	26	120	12	22	6
2810-22-16	22.00	16	32	120	13	27	6
Art. N°	D1 h6	D2 h6	D3	L	A	SW	B
2811-16-10	16.00	10	22	80	8	19	3

Tasseaux
Fräsdorne
Milling arbors

2815 R

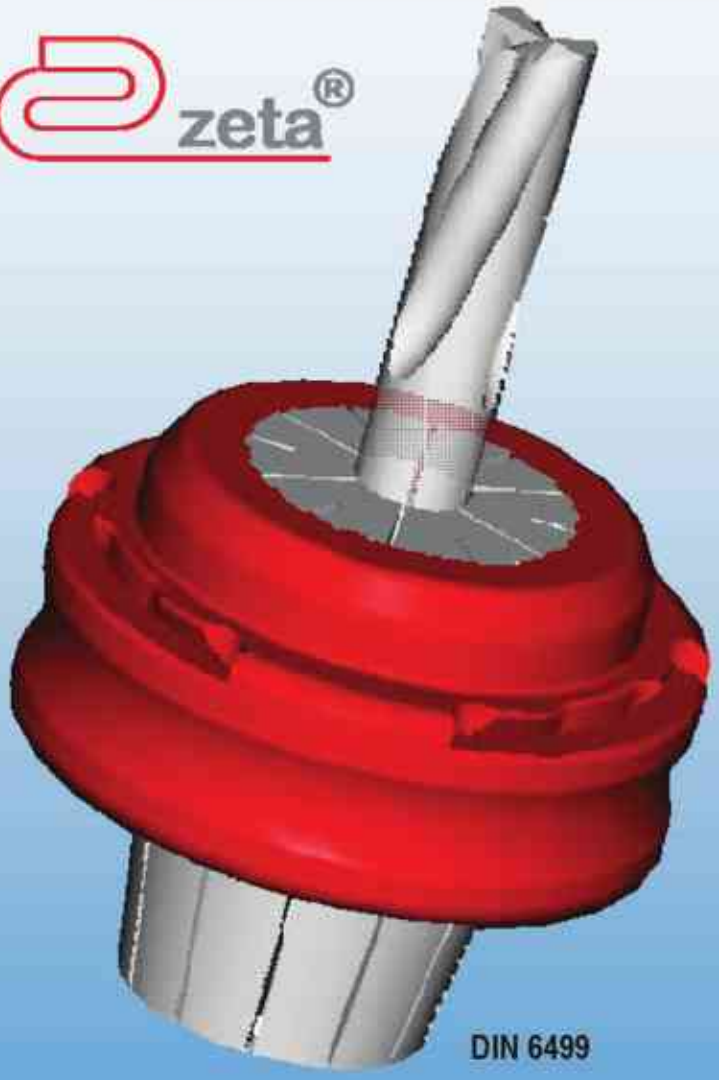
SWISS MADE

Tasseaux pour très petites fraises circulaires Fräsdorne für sehr kleine Kreissägeblätter Arbors for very small slitting saws							
Art. N°	D1 h6	D2 h6	D3	L	A	SW	B
2815-3-5	3.00	5	5	60	7	4	3
2815-5-6	5.00	6	7.5	70	7	6	3

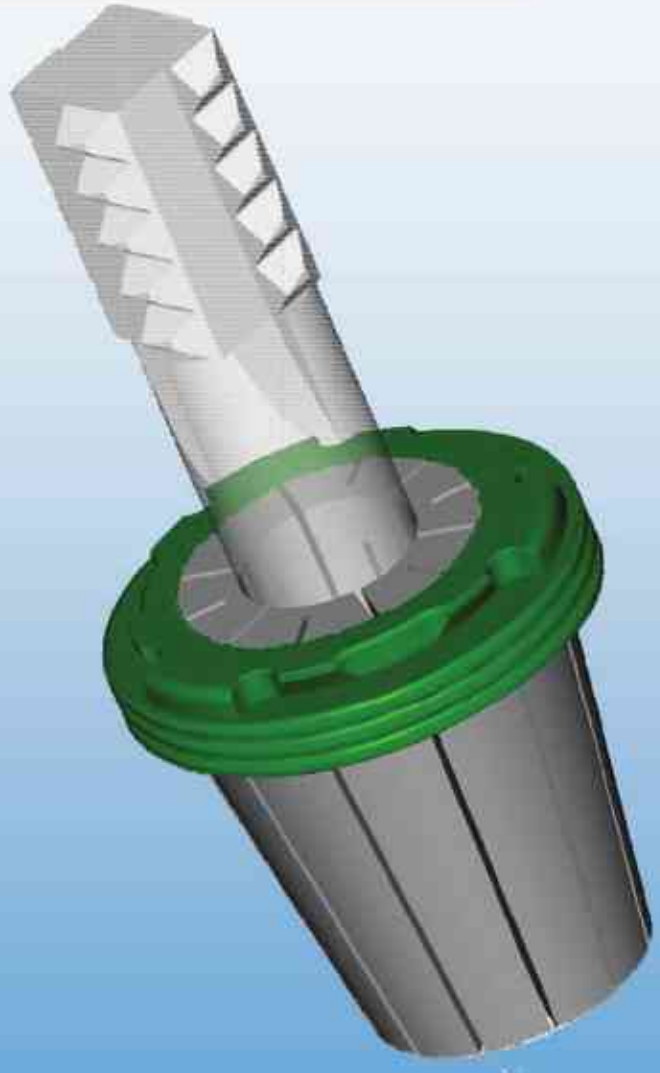
Chaque tasseau est livré avec 2 entretoises et 1 écrou
Jeder Fräsdorn wird mit 2 Abstandsringen und 1 Mutter geliefert
2 distance rings and 1 nut are included with each arbor

ALOUETTE TOOL COMPANY LTD.

zeta®



DIN 6499



DIN 6499 and DIN 6388

SAFETY COLLET CLAMPING SYSTEM

Zeta safety clampingsystem for collets DIN6499 and DIN6388

The New Zeta Collet Clamping Systems offers a lot of advantages.

Everyone in the machine industry is aware of different collet systems like ER - DIN6499, OZ - DIN6388, and various others.

All these systems have problems with the proper application of torque by using spanner wrenches in most cases. The New Zeta collet clamping system offers the market a much better advantage to solve most collet clamping problems.

Collets are used in a lot of different variations such as; static and rotating tools, multi-spindle heads, Swiss-turn lathes, angle-heads in different sectors like automotive ,aircraft, various metal, medical, wood and plastic manufacturers.

In each of these fields no one offers, until today, an absolutely safe collet clamping system with the addition of the possibility to lock the collets with extremely high torque moments, also in very complicated applications with limited space around and between the spindles in multi-spindle machines.

Exactly for this purpose Zollmann GmbH developed a solution with the New Zeta collet nut system.

The New Zeta system provides a lot of unique and unexpected possibilities that never have been offered before by other popular collet clamping systems. The New Zeta system is completely exchangeable with all spindles in single situations, aggregates, multi-spindle heads, and Swiss turn lathes which use

ER-DIN6499 or OZ-DIN6388 collet systems.

The unique operating tools that this new system offers, gives the machinist a choice of what tools best suits their preference. We offer standardized tool connectors in 1/2, 3/8, and 1/4 inch sizes and various hexagons.

The enormous torque power of this system has been optimized by a new unique security profile that eliminates slipping out while clamping your tools.

We suggest you improve working quality and ease of operation by upgrading and updating your old worn collet nuts.

The proper use of torque wrenches together with the correct specified torque moments is a must in the future and should be applied to all successful working machinery facilities in the world.

The multiple possibilities of the new clamping system, gives the customer a lot of variations for all kinds of spindle situations.

Additionally the Zeta system can also be used with popular sealing disc systems currently used for internally cooled cutting tools.

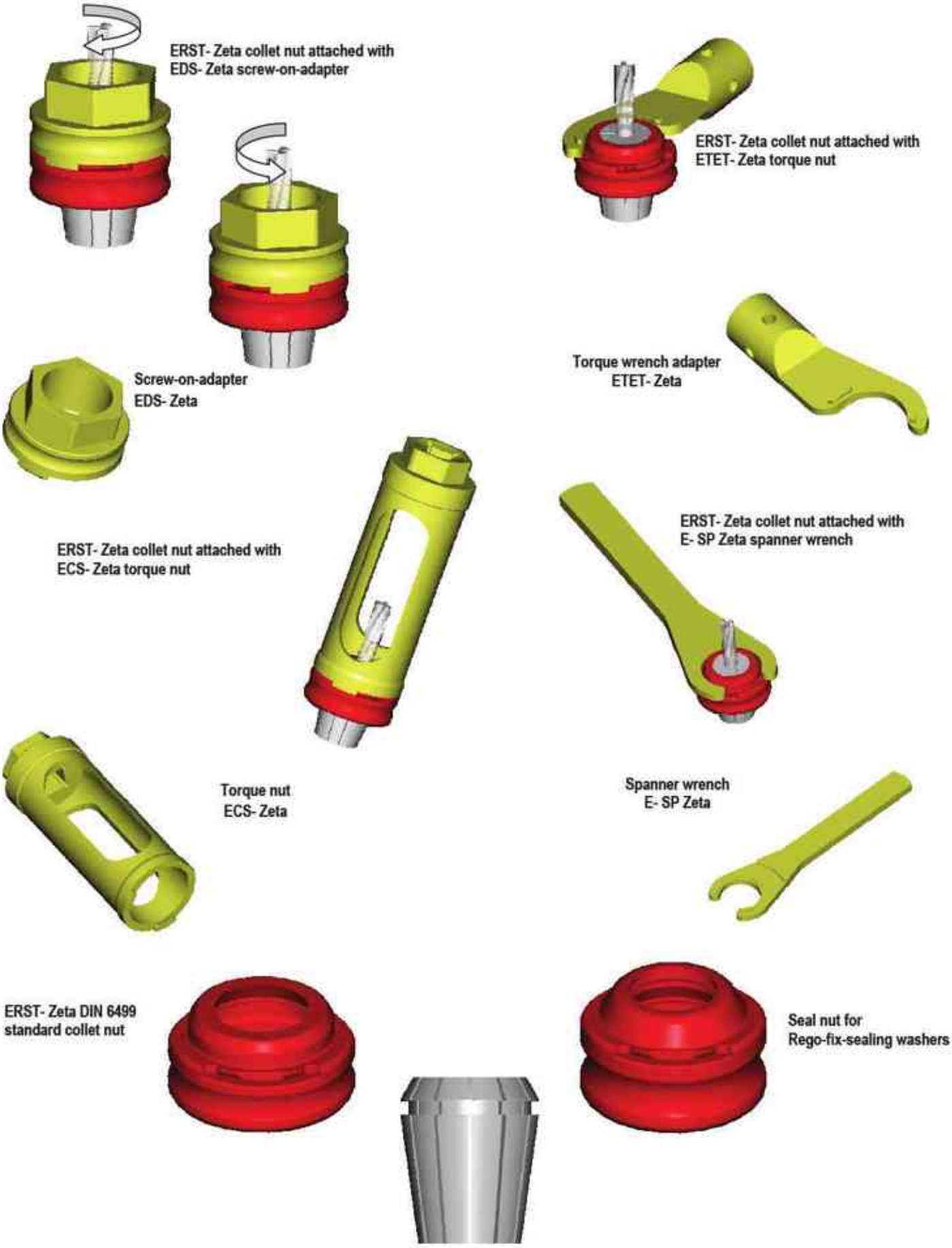
The Zeta system is patent pending.

Your advantages with the new zeta® safety clamping system

Your advantages at a glance

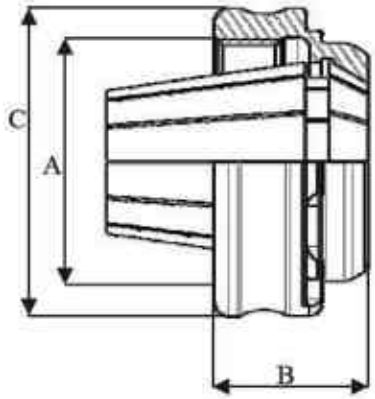
- Increased torque over all other collet clamping systems, because the torque is transferred thru the new ZETA profile by means of the screw-on torque nut or adapter.
- Proper torque settings can be archived by using a torque wrench in combination with our zeta screw-on torque nut or adapter.
  This takes out the guess work.
- No more slipping of cutting tools inside the collet.
- Standard wrenches with 1/2", 3/8", or 1/4" can be used as well for clamping the collet nut with our adapters allowing for easy radial and axial clamping.
- By using our torque nut adapters in an axial position you can be assured of proper clamping of your collets.
- The unique patenteted zeta profile eliminates the possibility of slipping away from the collet nuts during clamping operations witch reduces accidental tool breakage an more importantly machinist injuries.
- Safe and simple clamping of collet nuts of type ER 8 to ER 50 (DIN6499) and OZ25/RDO35 (DIN6388).
- Zeta collet nuts are available with internal or external thread as well as ER Mini. Available in ER an OZ/RDO standard versions, too.
- The diameter of our clamping tools are always the same size or smaller in diameter then the collet nuts, which allow for ease of acess between spindles that are very close together or for tight areas in the machine.
- Zeta sealing nuts are compatible with regofix sealing discs.
- Zeta collet nuts allow for flush seating of the collet without any space.
- That could be contaminated with chips and there for interfering with the cooling fluid coming thru the collet.
- The new zeta safety collet clamping system is the clear choice for safe and proper mounting of your tooling.

ERST Zeta
Safety Clamping System



ERST Zeta
System Variations

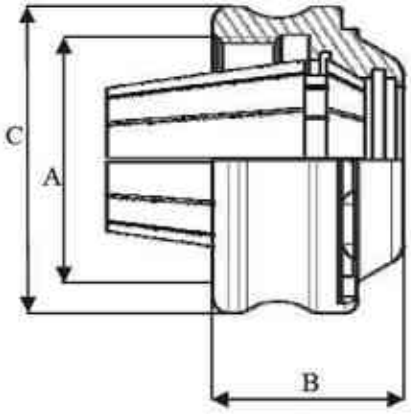
Collet nut after DIN 6499 type ER / ESX



type	order number	A	B	C
ERST 16 Zeta	SPAMUERST16Zeta	28	17,5	M22x1,5
ERST 20 Zeta	SPAMUERST20Zeta	34	19	M25x1,5
ERST 25 Zeta	SPAMUERST25Zeta	42	20	M32x1,5
ERST 32 Zeta	SPAMUERST32Zeta	50	23	M40x1,5
ERST 40 Zeta	SPAMUERST40Zeta	63	25	M50x1,5

ERST Zeta
system variations
for sealing nuts

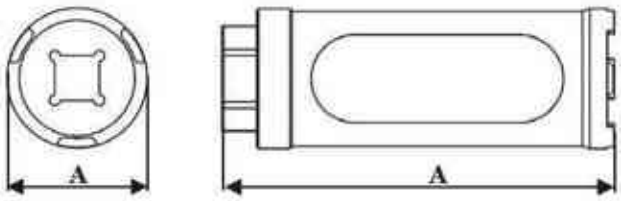
Sealing nut after DIN 6499 (Rego-fix sealing system) standard



type	order number	A	B	C
ERSD 16 Zeta	SPAMUERSD16Zeta	28	22,5	M22x1,5
ERSD 20 Zeta	SPAMUERSD20Zeta	34	24	M25x1,5
ERSD 25 Zeta	SPAMUERSD25Zeta	40	25	M32x1,5
ERSD 32 Zeta	SPAMUERSD32Zeta	50	27,5	M40x1,5
ERSD 40 Zeta	SPAMUERSD40Zeta	63	30,5	M50x1,5

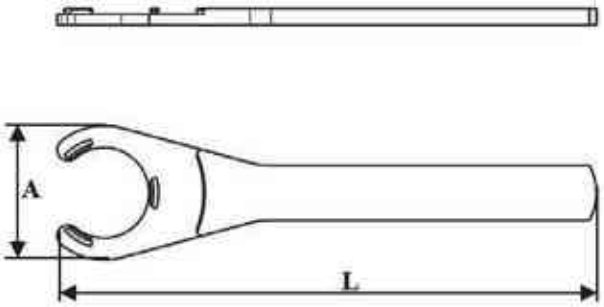
ERST Zeta
Operating Tools

Torque– nut



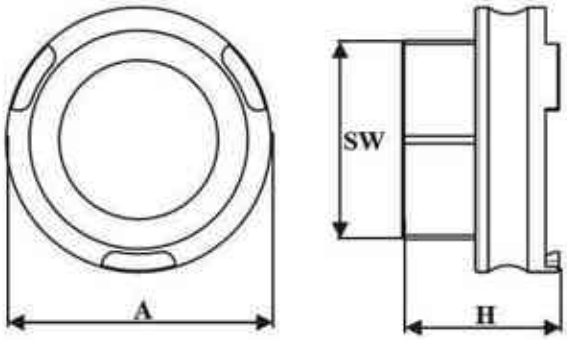
type	order number	A	H
ECS 16 Zeta	STECS16Zeta	28	85
ECS 20 Zeta	STECS20Zeta	34	102
ECS 25 Zeta	STECS25Zeta	40	112
ECS 32 Zeta	STECS32Zeta	50	123
ECS 40 Zeta	STECS40Zeta	63	140

Spanner wrench for nut type Zeta



type	order number	A	L
E-SP 16 Zeta	SCHESP16Zeta	Ø21	180
E-SP 20 Zeta	SCHESP20Zeta	Ø26	180
E-SP 25 Zeta	SCHESP25Zeta	Ø30	200
E-SP 32 Zeta	SCHESP32Zeta	Ø37	215
E-SP 40 Zeta	SCHESP40Zeta	Ø47	240

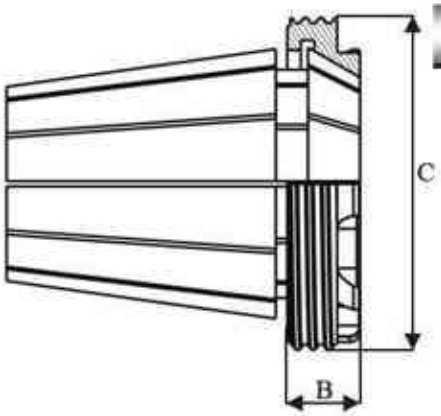
Screw-on-adapter



type	order number	A	SW	H
EDS 16 Zeta	SCHEDS16Zeta	22	19	18
EDS 20 Zeta	SCHEDS20Zeta	27	22	19
EDS 25 Zeta	SCHEDS25Zeta	30	27	20
EDS 32 Zeta	SCHEDS32Zeta	36	30	21
EDS 40 Zeta	SCHEDS40Zeta	46	36	24

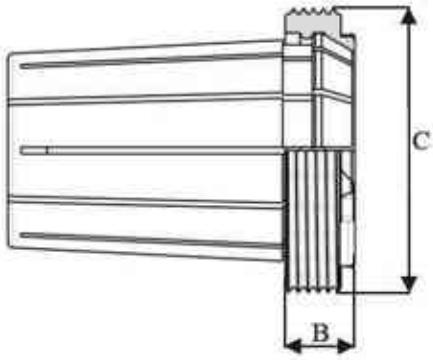
ER Zeta
System Variations

Collet nut aftter DIN 6499 with external thread



type	order number	B	C
ER 11 Zeta	SPAMUER11Zeta	4	M18x1
ER 16 Zeta	SPAMUER16Zeta	6	M24x1
ER 20 Zeta	SPAMUER20Zeta	6,5	M28x1,5
ER 25 Zeta	SPAMUER25Zeta	7	M32x1,5
ER 32 Zeta	SPAMUER32Zeta	7,5	M40x1,5
ER 40 Zeta	SPAMUER40Zeta	10	M50x1,5
ER 50 Zeta	SPAMUER50KMZeta	15	M68x1,5

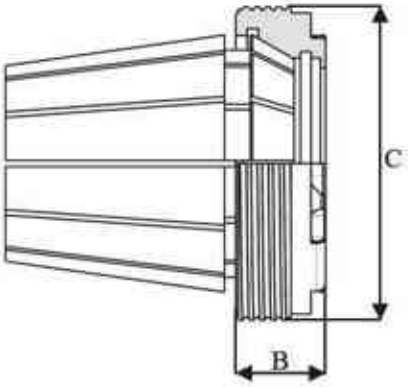
Collet nut after DIN 6388 with external thread



type	order number	B	C
OZ 25 Zeta	SPAMUOZ25Zeta	10,5	M43x1,5

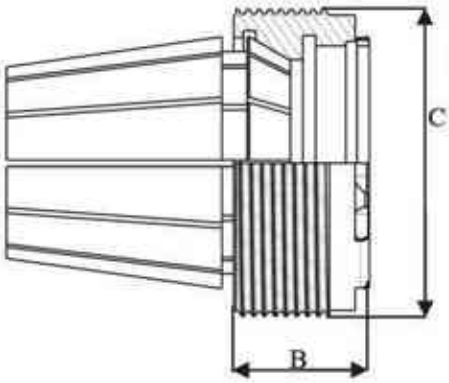
ER Zeta
system variations
for sealing nuts

Sealing nut after DIN 6499 (Rego-fix Sealing System) with external thread



type	order number	B	C
ERAXC 16 Zeta	SPAMUERAXC16Zeta	10	M24x1
ERAXC 20 Zeta	SPAMUERAXC20Zeta	11	M28x1,5
ERAXC 25 Zeta	SPAMUERAXC25Zeta	11,5	M32x1,5
ERAXC 32 Zeta	SPAMUERAXC32Zeta	12,5	M40x1,5
ERAXC 40 Zeta	SPAMUERAXC40Zeta	14	M50x1,5

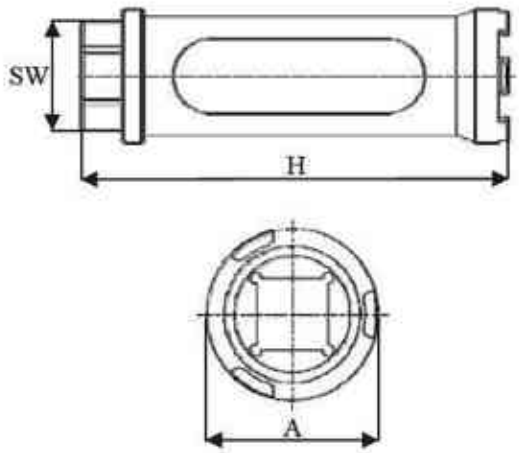
Sealing nut after DIN 6499 (Zollmann Sealing System) with external thread



type	order number	B	C
ERZD 32 Zeta	ERZD 32 Zeta	18	M40x1,5
ERZD 40 Zeta	ERZD 40 Zeta	22	M50x1,5
ERZD 50 Zeta	ERDZ 50 Zeta	24	M68x1,5

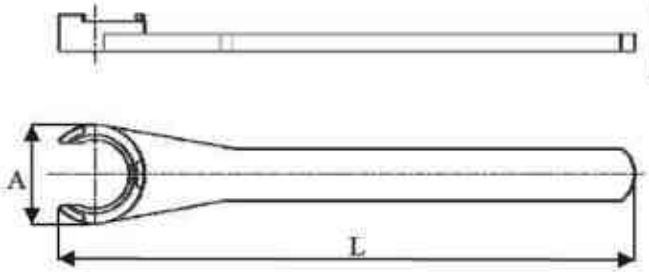
ER Zeta
Operating Tools

Torque- nut



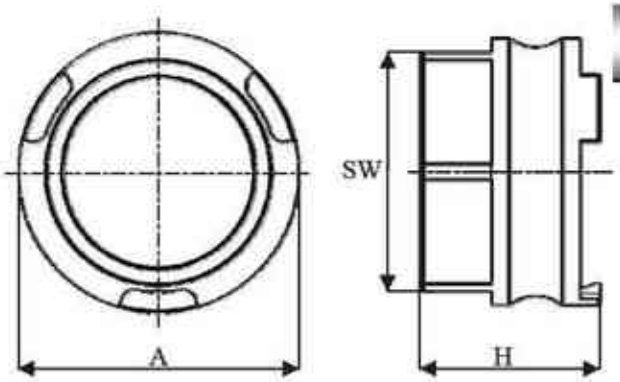
type	order number	A	SW	H
EC 11-12 Zeta	STEC11-12Zeta	16	13	75
EC 16 Zeta	STEC16Zeta	22	17	85
EC 20 Zeta	STEC20Zeta	26	19	90
EC 25 Zeta	STEC25Zeta	30	22	96
EC 32 Zeta	STEC32Zeta	38	27	96
EC 40 Zeta	STEC40Zeta	48	27	110
EC 50 Zeta	STEC50Zeta	66	27	130
OC 25 Zeta	STOC25Zeta	41	27	110

Spanner wrench for nut type Zeta



type	order number	A	L
E 11-12 Zeta	SCHE11-12Zeta	Ø16	150
E 16 Zeta	SCHE16Zeta	Ø21	180
E 20 Zeta	SCHE20Zeta	Ø26	180
E 25 Zeta	SCHE25Zeta	Ø30	200
E 32 Zeta	SCHE32Zeta	Ø37	215
E 40 Zeta	SCHE40Zeta	Ø47	240
E 50 Zeta	SCHE50Zeta	Ø66	260
O 25 Zeta	SCHO25Zeta	Ø40	215

Screw-on-adapter



type	order number	A	SW	H
ED 11-12 Zeta	SCHED11-12Zeta	16	13	16
ED 16 Zeta	SCHED16Zeta	22	19	18
ED 20 Zeta	SCHED20Zeta	26	22	19
ED 25 Zeta	SCHED25Zeta	30	27	20
ED 32 Zeta	SCHED32Zeta	38	30	21
ED 40 Zeta	SCHED40Zeta	48	36	24
ED 50 Zeta	SCHED50Zeta	66	46	30
OD 25 Zeta	SCHOD25Zeta	41	36	24

IN COMPARISON

In this picture you can see a typical example of a 3-spindle head from a Swiss turning lathe with standard ER-Mini collet nuts.

You can easily see that the clamping operation is extremely dangerous and difficult.

The operator does not have enough room to properly operate the spanner wrench and effectively clamp the collet nuts.

The operator has to take extreme care on clamping the collet nuts and not injure his hand or break expensive cutting tool bits!

The operator cannot achieve proper torque settings using these type of spanner wrenches in this manner.

The bottom line is that it is not operator friendly, proper torque cannot be achieved in this manner, and most importantly not a safe operation.

In this picture we illustrate the new Zeta collet nut system!

The operator (machinist) has a choice of what tools best suits their preference for safe clamping operations.

In this case the operator uses a combination of a ratchet tool together with our Zeta torque nut, a Torque wrench with ratchet function could also be used.

These tools together with the torque nut shows an effective quick clamping operation without any danger to the operator's hands. This operation practically eliminates operator injury!

The bottom line is that this is an absolute easier and safer way to clamp your collet nuts. The operator tools allow for proper high torque settings and virtually eliminate the potential of injury! Using the Zeta collet system is the only way to install tooling effectively, see for yourself and order today!

ERM Zeta Mini
Safety Clamping System

ERM- Zeta collet nut attached wi-h
EDS- Zeta screw-on-adapter

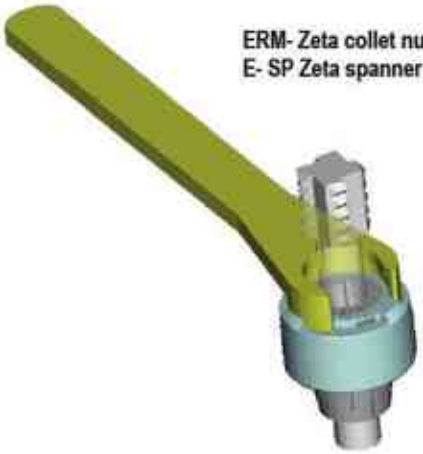
ERM- Zeta collet nut attached with
ETET- Zeta torque nut

Torque wrench adapter
ETET- Zeta

Screw-on-adapter
EDS- Zeta

ERM- Zeta collet nut attached with
ECS- Zeta torque nut

ERM- Zeta collet nut attached with
E- SP Zeta spanner wrench



Torque nut
ECS- Zeta

Spanner wrensch
E- SP Zeta

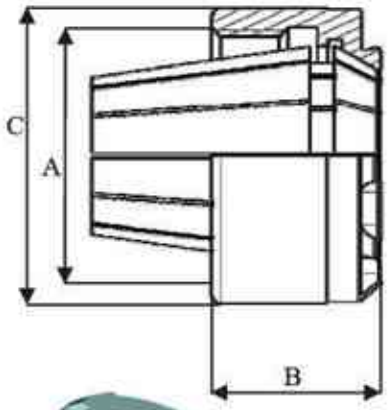
compatible with ER collets DIN 6499

ERM- Zeta
Mini collet nut after DIN 6499

ERMD- Zeta
Mini sealing collet nut after DIN 6499

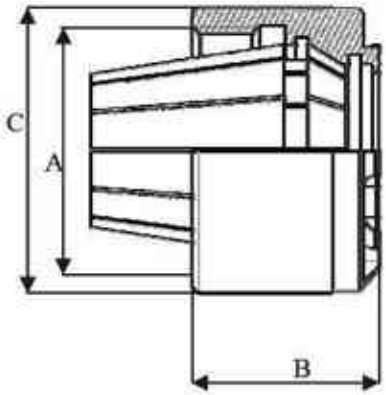
ERM Zeta Mini
Safety Clamping System

Zeta- Mini- collet nut after DIN 6499 type ERM- Zeta



type	order number	A	B	C
ERM 08 Zeta*	SPAMUERM08Zeta	12	11,3	M10x0,75
ERM 11 Zeta*	SPAMUERM11Zeta	16	11,3	M13x0,75
ERM 12 Zeta*	SPAMUERM12Zeta	17	11,3	M14x0,75
ERM 16 Zeta*	SPAMUERM16Zeta	22	17	M19x1,0
ERM 20 Zeta*	SPAMUERM20Zeta	28	19	M24x1,0
ERM 25 Zeta*	SPAMUERM25Zeta	35	20	M30x1,0
ERM 32 Zeta*	SPAMUERM32Zeta	43	23	M38 x1,0

Zeta- Mini– sealing nut after DIN 6499 type ERM- Zeta

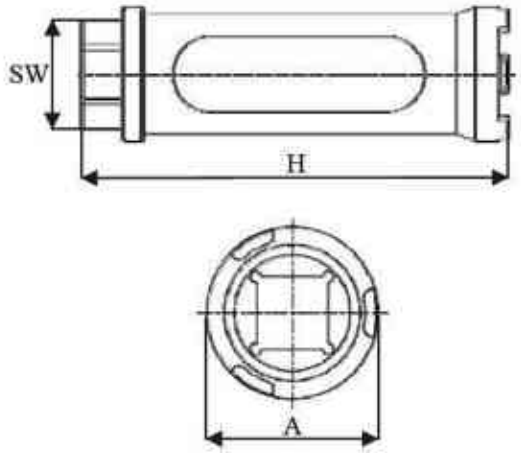


type	order number	A	B	C
ERM 16 Zeta*	SPAMUERMD16Zeta	22	17	M19x1,0
ERM 20 Zeta*	SPAMUERMD20Zeta	28	19	M24x1,0
ERM 25 Zeta*	SPAMUERMD25Zeta	35	20	M30x1,0
ERM 32 Zeta*	SPAMUERMD32Zeta	43	23	M38 x1,0

For ERM Zeta nuts use the operation tools from the ER Zeta system on page 19

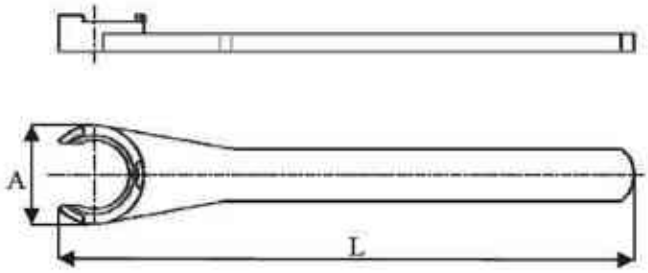
ERM Zeta Mini
Operating Tools

Torque Nut



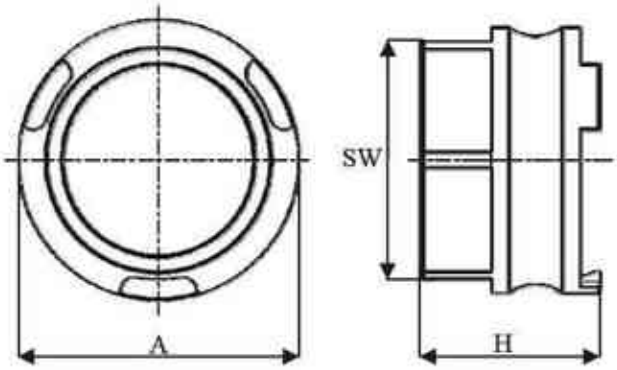
type	order number	A	SW	H
EC 08 Zeta	STEC08Zeta	12	12	75
EC 11-12 Zeta	STEC11-12Zeta	16	13	75
EC 16 Zeta	STEC16Zeta	22	17	85
EC 20 Zeta	STEC20Zeta	26	19	90
EC 25 Zeta	STEC25Zeta	30	22	96
EC 32 Zeta	STEC32Zeta	38	27	96

Spanner Wrench



type	order number	A	L
E 08 Zeta	SCHE08Zeta	Ø16	150
E 11-12 Zeta	SCHE11-12Zeta	Ø16	150
E 16 Zeta	SCHE16Zeta	Ø21	180
E 20 Zeta	SCHE20Zeta	Ø26	180
E 25 Zeta	SCHE25Zeta	Ø30	200
E 32 Zeta	SCHE32Zeta	Ø37	215

Screw-on Adapter



type	order number	A	SW	H
ED 08 Zeta	SCHED08Zeta	12	10	16
ED 11-12 Zeta	SCHED11-12Zeta	16	13	16
ED 16 Zeta	SCHED16Zeta	22	19	18
ED 20 Zeta	SCHED20Zeta	26	22	19
ED 25 Zeta	SCHED25Zeta	30	27	20
ED 32 Zeta	SCHED32Zeta	38	30	21

CARBIDE TOOL GRINDING AND LAPPING MACHINE TYPE AB-175 WITH MOTOR-BRAKE

This machine is intended especially for the grinding and lapping of carbide tipped cutting tools, such as used on automatic lathes etc.

Its distinguishing merits are precision, speed and minimum grinding wheel wear.

Supplementary attachments permit the grinding of small end mills and drills, and of chip-breaker grooves.

The type AB-175 High Precision Tool Grinding and Lapping Machine offers, in its latest development, essential improvements and advantages.
It is designed to the unit-compound system and suits also serial production. Machining large serial components or finishing after heat treatment leads to economical production time. Handy extra equipment increases the field application.

The easy and foolproof control as well as the logical distribution of the control elements ensure high accuracy and grinding to the true angle.

TECHNICAL DATA

Clamping Capacity: 4-30 mm (5/32" – 1 3/16")
3-Phase Motor: 0,55 Kw and 0,75 CV, 1400 rpm. voltage to be specified
Pump Driving Motor: 1/10 CV, 2900 rpm. voltage to be specified
Grinding Spindle Speed: 3000 rpm.
Dimensions of Machine: 900 x 600 x 1500 mm (35 x 24 x 59")
Dimensions of Packing Case: 1000 x 700 x 1700 mm (40 x 28 x 59")
Net Weight: approx. 210 kg (465 lbs)
Gross Weight: approx. 300 kg (660 lbs)

GRINDING WHEELS

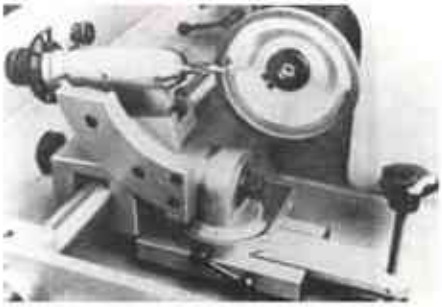
Double-side coated cup wheel:
OD: 175 mm (7")
Width: 30-35 mm (1 3/16 – 1 3/8")
ID: Ø 20 mm (.7874")

Chip-breaking flute grinding wheel:
OD: 75 mm (3")
Width: 4-5 mm (5/32 – 3/16")
ID: Ø 12 mm (.4724")

EXTRAS

End mill and drill attachment,
type 6.20

Chip-breaker grooving attachment,
type 6.21



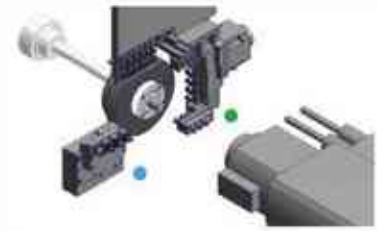
Universal grinding attachment,
type 6.22

To face off the grinding wheel,
type 6.24

Alouette Tool Co
Live Tool Catalog

STAR

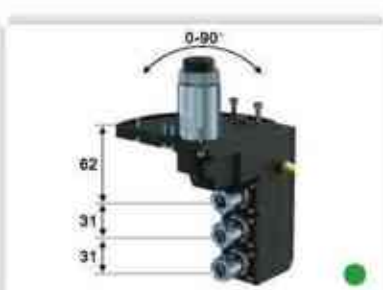
ECAS, SB, SR, SW



STAR

	2-spindle drilling/milling unit		2-spindle double drilling/milling unit		2-spindle double drilling/milling unit	
Product No.	STRA2A2204		STRA2B2202		STRA2B2302	
Ref. No.	54151	STR446200	66159	STR546200	10169	STJA5N22000
Speed ratio	1:1		1:1		1:1	
RPM Max.	6000		6000		5000	
Tool clamping	ER16M		ER16M/ER11M		ER20M/ER16M	

	3-spindle drilling/milling unit		3-spindle drilling/milling unit		3-spindle double drilling/milling unit	
Product No.	STRA2A3201		STRA2A3301		STRA2B3201	
Ref. No.	66151	STR446300	67151	STR446300-1	67161	STR546300
Speed ratio	1:1		1:1		1:1	
RPM Max.	6000		6000		6000	
Tool clamping	ER16M		ER16M		ER16M/ER11M	

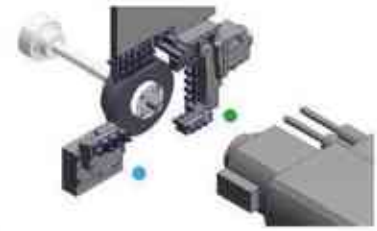


	3-spindle double drilling/milling unit		3-spindle drilling/milling unit		3-spindle drilling/milling unit	
Product No.	STRA2B3301		STRA2A3202		STRA2A3302	
Ref. No.	67159	STR546300-1	–	STR496300	–	STR496300-1
Speed ratio	1:1		1:1		1:1	
RPM Max.	6000		6000		6000	
Tool clamping	ER16M/ER11M		ER16M		ER16M	

Symbology: Internal Coolant/BAR, Speeder, Reducer, Adjustable

STAR

ECAS, SB, SR, SW



	2-spindle drilling/milling unit		3-spindle double drilling/milling unit		3-spindle double drilling/milling unit	
Product No.	STRA2A2202		STRA2B3202		STRA2B3302	
Ref. No.	–	STR496200	–	STR596300	–	STR596300-1
Speed ratio	1:1		1:1		1:1	
RPM Max.	6000		6000		6000	
Tool clamping	ER16M		ER16M/ER11M		ER16M/ER11M	

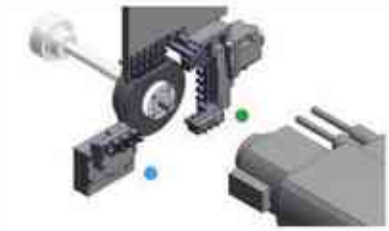
	2-spindle drilling/milling unit		3-spindle drilling/milling unit		3-spindle drilling/milling unit	
Product No.	STRA2A2303		STRA2A3203		STRA2A3207	
Ref. No.	–	STR496200-2	–	STR496300-2	–	STR496300-5
Speed ratio	1:1		1:1		1:1	
RPM Max.	6000		6000		6000	
Tool clamping	ER16M		ER16M		ER16M	

	Cross drilling/milling unit		Cross drilling/milling unit		Cross drilling/milling unit	
Product No.	STRA116202 / STRA120201		STRA116201		STRA111202	
Ref. No.	33150	STR161000	57155	STR166100	–	STR161100
Speed ratio	1:1		1:1		1:3 ↑	
RPM Max.	8000		8000		18000	
Tool clamping	ER16M / ER20M		ER16M		ER11A	

Symbology: Internal Coolant/BAR, Speeder, Reducer, Adjustable

STAR

ECAS, SB, SR, SW



STAR

	Cross drilling/milling unit, 3-spindle	
Product No.	STRA111201	
Ref. No.	–	STR261300
Speed ratio	1:1	
RPM Max.	8000	
Tool clamping	ER11M	

	Slotting unit	
Product No.	STRA712201	
Ref. No.	54153	STR301000
Speed ratio	1:0.374	
RPM Max.	4000	
Tool clamping	Ø12.7xØ50	

	Thread whirling unit	
Product No.	STRA545203	
Ref. No.	68172	STR260100N
Speed ratio	1:1	
RPM Max.	6000	
Tool clamping	Utilis no.119287	

	Polygon unit	
Product No.	STRA400201	
Ref. No.	54191	STR150100
Speed ratio	1:1	
RPM Max.	3000	
Tool clamping	–	

	Gear hobbing unit	
Product No.	STRA613201	
Ref. No.	–	STR130100
Speed ratio	1:1	
RPM Max.	6000	
Tool clamping	Ø13xØ30x20	

	Idler shaft	
Product No.	STRA100000	
Ref. No.	57189	STR160000
Speed ratio	–	
RPM Max.	–	
Tool clamping	–	

	Boring bar holder	
Product No.	STRA803307	
Ref. No.	–	STR14036200
Speed ratio	–	
RPM Max.	–	
Tool clamping	Ø22	

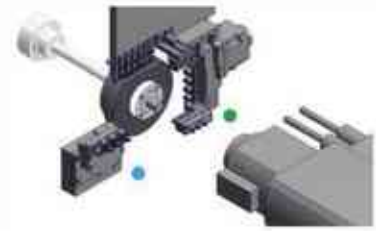
	Air tool holder	
Product No.	STRA0002	
Ref. No.	–	STR210300
Speed ratio	–	
RPM Max.	–	
Tool clamping	Ø22	

	Air tool holder	
Product No.	STBA0004	
Ref. No.	–	STB410100
Speed ratio	–	
RPM Max.	–	
Tool clamping	Ø22	

Symbology: Internal Coolant/BAR · Speeder · Reducer · Adjustable

STAR

ECAS, SB, SR, SW



	Air tool holder for sub spindle	
Product No.	STRB0001	
Ref. No.	–	STR14036200
Speed ratio	–	
RPM Max.	–	
Tool clamping	Ø22.8	

	Slotting unit for sub spindle	
Product No.	STRB700201	
Ref. No.	69166/69165	STR731000
Speed ratio	1:0.55	
RPM Max.	4000	
Tool clamping	Ø5/6/8/10/12.7/13xØ50	

	Slotting unit for sub spindle	
Product No.	STRB700202	
Ref. No.	0R165	STR731000-1
Speed ratio	1:0.55	
RPM Max.	4000	
Tool clamping	Ø5/6/8/10/12.7/13xØ50	

	Drilling/milling unit for sub spindle	
Product No.	STRB111208	
Ref. No.	54161	STR711000
Speed ratio	1:1	
RPM Max.	6000	
Tool clamping	ER11M	

	Drilling/milling unit for sub spindle	
Product No.	STRB116202	
Ref. No.	57161	STR761000
Speed ratio	1:1	
RPM Max.	6000	
Tool clamping	ER16M	

	Drilling/milling unit for sub spindle	
Product No.	STRB116201	
Ref. No.	0R161	STR766100
Speed ratio	1:1	
RPM Max.	6000	
Tool clamping	ER16M	

	Drilling/milling unit for sub spindle	
Product No.	STRB111204	
Ref. No.	–	STR761200
Speed ratio	1:3	
RPM Max.	18000	
Tool clamping	ER11	

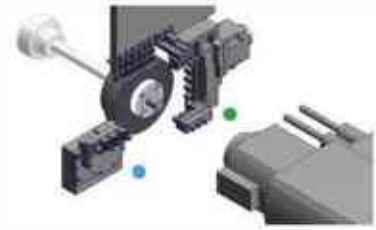
	Drilling/milling unit for sub spindle, 3-spindle	
Product No.	STRB108101	
Ref. No.	–	STR748400
Speed ratio	1:1	
RPM Max.	8000	
Tool clamping	ER8M	

	Drilling/milling unit for sub spindle, 3-spindle	
Product No.	STRB111201	
Ref. No.	0E151	STR741300
Speed ratio	1:1	
RPM Max.	8000	
Tool clamping	ER11M	

Symbology: Internal Coolant/BAR · Speeder · Reducer · Adjustable

STAR

ECAS, SB, SR, SW



STAR

	Cross drilling/milling unit for sub spindle		Cross drilling/milling unit for sub spindle		Cross drilling/milling unit for sub spindle	
Product No.	STRB311201		STRB316202		STRB316201	
Ref. No.	–	STR731100	–	STR736100	0R151	STR861100-1
Speed ratio	1:0.55		1:0.77		1:1	
RPM Max.	4000		4000		6000	
Tool clamping	ER11A		ER16A		ER16M	

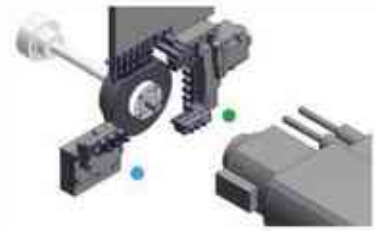
	Cross drilling/milling unit for sub spindle		Cross drilling/milling unit for sub spindle		Cross drilling/milling unit for sub spindle	
Product No.	STRB311101		STRB311204		STRB311301	
Ref. No.	–	STR861100-3	–	STR861100-2	–	STR861100-5
Speed ratio	1:1		1:1		1:1	
RPM Max.	6000		6000		6000	
Tool clamping	ER11		ER11		ER11	

	Cross drilling/milling unit for sub spindle		Cross drilling/milling unit for sub spindle		Drilling/milling unit for sub spindle	
Product No.	STRB311203		STRB311202		STRB111203	
Ref. No.	0E152	STR861100	–	STR861100-4	–	STR741300-1
Speed ratio	1:1		1:1		1:1	
RPM Max.	8000		6000		8000	
Tool clamping	ER11M		ER11		ER11	

Symbology: Internal Coolant/BAR, Speeder, Reducer, Adjustable

STAR

ECAS, SB, SR, SW



	Drill holder for sub spindle		Drill holder for sub spindle		Drill holder for sub spindle 25bar	
Product No.	STRB81Q309		STRB81Q307		STRB81Q304	
Ref. No.	–	STR646100-1	54121	STR646100-5	–	STR646100-2
Speed ratio	–		–		–	
RPM Max.	–		–		–	
Tool clamping	ER16M		ER16M		ER16M	

	Drill holder for sub spindle		Drill holder for sub spindle		Drill holder for sub spindle 25bar	
Product No.	STRB81Q305		STRB81Q313		STRB81Q303	
Ref. No.	–	STR642100	67122	STR642100-3	–	STR642100-1
Speed ratio	–		–		–	
RPM Max.	–		–		–	
Tool clamping	ER20M		ER20M		ER20M	

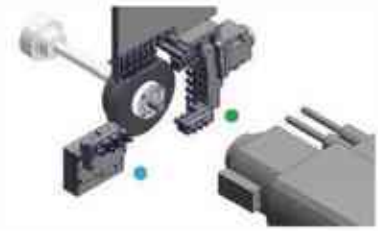
	Drill holder for sub spindle		Drill holder for sub spindle 25bar		Drill holder for sub spindle	
Product No.	STRB81E201		STRB81E202		STRB81S301	
Ref. No.	0R122	STR646100-3	0R123	STR646100-4	10119	STJA22KBA00
Speed ratio	–		–		–	
RPM Max.	–		–		–	
Tool clamping	ER16M		ER16M		ER20M	

Symbology

Internal Coolant/BAR Speeder Reducer Adjustable

STAR

ECAS, SB, SR, SW



STAR

	Drill holder for sub spindle		Drill holder for sub spindle	
Product No.	STRB81Q101		STRB81Q201	
Ref. No.	69125	STR64110010J	–	STR64110020R
Speed ratio	–		–	
RPM Max.	–		–	
Tool clamping	ER11M		ER11M	

※ER drill holder not included

※ER drill holder not included

	Drill holder for sub spindle		Drill holder for sub spindle	
Product No.	STRB82Q201		STRB82Q202	
Ref. No.	–	STJ640100	–	STJ640200
Speed ratio	–		–	
RPM Max.	–		–	
Tool clamping	Ø16		Ø16	

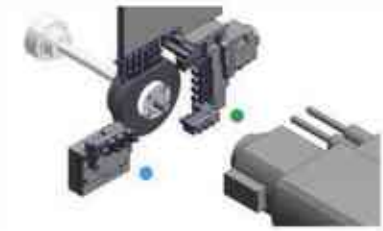
	Boring bar holder for sub spindle		Boring bar holder for sub spindle		Boring bar holder for sub spindle 25bar	
Product No.	STRB82Q200		STRBA22000+COMBAB0000		STRB82E200	
Ref. No.	–	STR601000	–	STR601200	–	STR680100-4
Speed ratio	–		–		–	
RPM Max.	–		–		–	
Tool clamping	Ø3/4/5/6/8/9/10/12/16		Ø3/4/5/6/8/9/10/12/16		Ø6/8/9/10/12/16	

Symbology

IC Internal Coolant/BAR Speeder Reducer Adjustable

STAR

ECAS, SB, SR, SW



	Turning holder for sub spindle	Turning holder for sub spindle	Turning holder for sub spindle
Product No.	STRBA22000+COMB ADL550	STRBA22000+COMBADR550	STRBA22000+COMBADL350
Ref. No.	– STR620100-1	– STR620100-6	– STR620100-7
Speed ratio	–	–	–
RPM Max.	–	–	–
Tool clamping	DC.T11T3	DC.T11T3	VC.T1103

	Turning holder for sub spindle	Turning holder for sub spindle	Turning holder for sub spindle
Product No.	STRB912201	STRB910202	STRBA22000+COMBAC1000
Ref. No.	– STR620100-3	– STR620100-4	– STR620100-2
Speed ratio	–	–	–
RPM Max.	–	–	–
Tool clamping	Ø12	□10	□10

	Turning holder for sub spindle	Turning holder for sub spindle	Turning holder for sub spindle
Product No.	STRB910201	STRB912203	STRB912204
Ref. No.	– STR620100	– STR62011200	– STR62011200-1
Speed ratio	–	–	–
RPM Max.	–	–	–
Tool clamping	□10	□12	□12

Symbology

Internal Coolant/BAR Speeder Reducer Adjustable

STAR

SV32JII, SV12, SV20, ECAS20T

STAR

	Axial drilling/milling unit		Radial drilling/milling unit		Thread whirling unit
Product No.	STVC116201		STVC2B2201		STVC545201
Ref. No.	22150	STV10301600	42159	STV51200	– STV260100
Speed ratio	1:1		1:1.16		1:1
RPM Max.	6000		6000		6000
Tool clamping	ER16A		ER11M		Utilis no.119287

※Longitudinally adj. ±1mm

※Longitudinally adj. ±1mm

	Turning holder		Turning holder		Boring bar holder
Product No.	STVC916201		STVC916202		STVC801204
Ref. No.	–	STV901000	–	STV901000-1	– STV140100-1
Speed ratio	–		–		–
RPM Max.	–		–		–
Tool clamping	□16		□16		Ø32

Symbology: Internal Coolant/BAR, Speeder, Reducer, Adjustable

STAR

SV32, ECAS32T, SV-38R

	Axial drilling/milling unit		Axial drilling/milling unit	
Product No.	STVC120301		STVC116301	
Ref. No.	58151	STV10302000-1	43151	STEV2A1C26A00
Speed ratio	1:1		1:1	
RPM Max.	6000		6000	
Tool clamping	ER20A		ER16A	

	Radial drilling/milling unit		Thread whirling unit	
Product No.	STVC2B2301		STVC545301	
Ref. No.	–	STV51200-1	–	STV260100-1
Speed ratio	1:1.16		1:1	
RPM Max.	6000		6000	
Tool clamping	ER11M		Utilis no.119287	

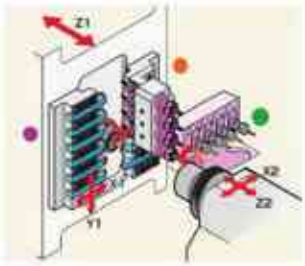
SG42

	Radial drilling/milling unit (for sub spindle)		Radial drilling/milling unit (for main spindle)	
Product No.	STGC2A2401		STGC2A2402	
Ref. No.	–	STG42042073200	–	STG42042073200-1
Speed ratio	1:1		1:1	
RPM Max.	6000		6000	
Tool clamping	ER20M		ER20M	

Symbology — Internal Coolant/BAR · Speeder · Reducer · Adjustable

TSUGAMI

BO205



	Thread whirling unit		Tool holder		Cross drilling/milling unit for sub spindle	
Product No.	TSBA545201		TSBA0001		TSBB311201	
Ref. No.	–	TSCA3L01000	3220-T520	TSB140400	3220-Y7074	TSB861100
Speed ratio	1:1		–		1:1	
RPM Max.	8000		–		8000	
Tool clamping	Utilis no.119287		Ø20		ER11A	

	Drilling/milling unit for sub spindle		Drill holder for sub spindle	Drill holder for sub spindle	
Product No.	TSBB116201		TSBB81Q202	TSBB82Q201	
Ref. No.	3220-Y7072	TSB746100-1	–	3220-Y7073	TSB640100-2
Speed ratio	1:1		–	–	
RPM Max.	8000		–	–	
Tool clamping	ER16M		ER11A	Ø20	

	Turning holder for sub spindle		Air tool holder for sub spindle	
Product No.	TSBBA20000+COMBADL550		TSBB0001	
Ref. No.		TSCA41YAA00		TSB601000
Speed ratio				
RPM Max.				
Tool clamping	DC.T11T3		NR-303	

Symbology

IC Internal Coolant/BAR Speeder Reducer Adjustable

TSUGAMI

BO265, BO266, BO325, BO326, BO385

	Cross drilling/milling unit	
Product No.	TSBA116301	
Ref. No.	3268-T051	TSB246100
Speed ratio	1:1	
RPM Max.	6000	
Tool clamping	ER16A	

	Cross drilling/milling unit	
Product No.	TSBA120301	
Ref. No.	3268-T051-ER20	TSB242100
Speed ratio	1:1	
RPM Max.	6000	
Tool clamping	ER20A	

	Cross drilling/milling unit	
Product No.	TSBA111301	
Ref. No.	3290-Y670	TSB241100
Speed ratio	1:2	
RPM Max.	12000	
Tool clamping	ER11A	

	Cross drilling/milling unit	
Product No.	TSBA116303	
Ref. No.	–	TSB246100-1
Speed ratio	1:1	
RPM Max.	6000	
Tool clamping	ER16A	

	Cross drilling/milling unit, 2-spindle	
Product No.	TSBA116304	
Ref. No.	–	TSB246200
Speed ratio	1:1	
RPM Max.	6000	
Tool clamping	ER16A	

	Thread whirling unit	
Product No.	TSBA545301	
Ref. No.	3268-Y450	TSB260100
Speed ratio	1:1	
RPM Max.	5000	
Tool clamping	Utilis no.119287	

	Drilling unit (deep hole)	
Product No.	TSBA116302	
Ref. No.	3290-Y010	TSB146200
Speed ratio	1:1	
RPM Max.	8000	
Tool clamping	ER16A	

	2-spindle drilling/milling unit	
Product No.	TSBA2A2304	
Ref. No.	–	TSB446200-1
Speed ratio	1:1	
RPM Max.	6000	
Tool clamping	ER16AM	

	2-spindle double drilling/milling unit	
Product No.	TSBA2B2303	
Ref. No.	3282-Y901	TSB546200-1
Speed ratio	1:1	
RPM Max.	6000	
Tool clamping	ER16AM	

Symbology: Internal Coolant/BAR, Speeder, Reducer, Adjustable

TSUGAMI

BO265, BO266, BO325, BO326, BO385

TSUGAMI

	2-spindle drilling/milling unit		2-spindle double drilling/milling unit		Drilling/milling unit	
Product No.	TSBA2A2301		TSBA2B2302		TSBA2A1301	
Ref. No.	–	TSB496200	3282-Y921	TSB596200	–	TSB446100-1
Speed ratio	1:1		1:1		1:1	
RPM Max.	6000		6000		6000	
Tool clamping	ER16AM		ER16AM		ER16AM	

	3-spindle drilling/milling unit		3-spindle double drilling/milling unit		3-spindle double drilling/milling unit	
Product No.	TSBA2A3301		TSBA2B3302		TSBA2B3301	
Ref. No.	–	TSGA4N6300	–	TSB541300	–	TSB591300
Speed ratio	1:1		1:1		1:1	
RPM Max.	5000		6000		6000	
Tool clamping	ER16AM		ER11A		ER11A	

	Drilling/milling unit for sub spindle		Drilling/milling unit for sub spindle		Cross drilling/milling unit for sub spindle	
Product No.	TSBB116301		TSBB111301		TSBB316301	
Ref. No.	3282-Y041	TSB746100	3290-Y680	TSB741100	3290-Y041	TSB866100
Speed ratio	1:1		1:2		1:1	
RPM Max.	6000		12000		6000	
Tool clamping	ER16A		ER11A		ER16M	

Symbology

Internal Coolant/BAR Speeder Reducer Adjustable

TSUGAMI

BO265, BO266, BO325, BO326, BO385

	Slotting unit for sub spindle	
Product No.	TSBB712301	
Ref. No.	–	TSB730100
Speed ratio	1:1	
RPM Max.	3000	
Tool clamping	Ø12.7xØ70	

	Drill holder for sub spindle 25bar	
Product No.	TSBB82Q304	
Ref. No.	3282-Y211	TSB640100MC
Speed ratio	–	
RPM Max.	–	
Tool clamping	Ø25	

	Drill holder for sub spindle	
Product No.	TSBB82Q303	
Ref. No.	–	TSB640100MC
Speed ratio	–	
RPM Max.	–	
Tool clamping	Ø25	

	Drill holder for sub spindle	
Product No.	TSBB82Q302	
Ref. No.	–	TSB640100-1
Speed ratio	–	
RPM Max.	–	
Tool clamping	Ø25	

	Drill holder for sub spindle 25bar	
Product No.	TSBB81Q301	
Ref. No.	–	TSB642100
Speed ratio	–	
RPM Max.	–	
Tool clamping	ER20M	

	Turning holder for sub spindle	
Product No.	TSBB912301	
Ref. No.	–	TSB620100
Speed ratio	–	
RPM Max.	–	
Tool clamping	□12	

	Turning holder for sub spindle	
Product No.	TSBB910301	
Ref. No.		TSB620100-1
Speed ratio		
RPM Max.		
Tool clamping	□10	

	Turning holder for sub spindle	
Product No.	TSBB912302	
Ref. No.	–	TSB620100-2
Speed ratio	–	
RPM Max.	–	
Tool clamping	□12	

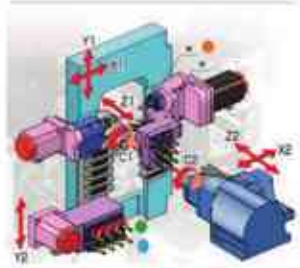
	Boring bar holder for sub spindle	
Product No.	TSBBA42000+COMBAB0000	
Ref. No.	–	TSGA43HKA00
Speed ratio	–	
RPM Max.	–	
Tool clamping	Ø3/4/5/6/8/9/10/12/16	

TSUGAMI

Symbology: Internal Coolant/BAR, Speeder, Reducer, Adjustable

TSUGAMI

S205, S206



TSUGAMI

	Cross drilling/milling unit		2-spindle double drilling/milling unit		2-spindle double drilling/milling unit
Product No.	TSSA116201		TSSA2B2201		TSSA2B2202
Ref. No.	3281-T050	TSS161000	3281-Y240	TSS562000	3281-Y280 TSS562100
Speed ratio	1:1		1:1		1:1
RPM Max.	8000		8000		8000
Tool clamping	ER16M		ER16M/ER11A		ER16M/ER11A

	3-spindle drilling/milling unit		3-spindle drilling/milling unit		3-spindle double drilling/milling unit
Product No.	TSSA2A3201		TSSA2A3202		TSSA2B3201
Ref. No.	–	TSS441300	–	TSS446300	– TSS546300
Speed ratio	1:1		1:1		1:1
RPM Max.	8000		8000		8000
Tool clamping	ER11A		ER16A		ER16A/ER11A

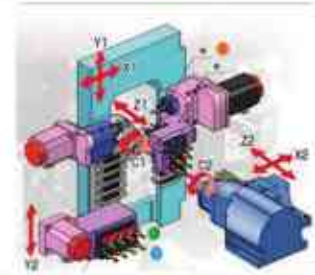
	3-spindle drilling/milling unit		3-spindle double drilling/milling unit		Thread whirling unit
Product No.	TSSA2A3203		TSSA2B3202		TSSA545201
Ref. No.	–	TSS496300	–	TSS596300	3281-Y450 TSS260100
Speed ratio	1:1		1:1		1:1
RPM Max.	8000		8000		5000
Tool clamping	ER16A		ER16A/ER11A		Utilis no.119287

Symbology

IC Internal Coolant/BAR Speeder Reducer Adjustable

TSUGAMI

S205, S206



	Cross drilling/milling unit for sub spindle	
Product No.	TSSB316201	
Ref. No.	3281-Y460	TSS861000
Speed ratio	1:1	
RPM Max.	6000	
Tool clamping	ER16M	

	Drilling/milling unit for sub spindle	
Product No.	TSSB116201	
Ref. No.	3281-S080	TSS761000
Speed ratio	1:1	
RPM Max.	8000	
Tool clamping	ER16M	

	Drill holder for sub spindle	
Product No.	TSSB82Q202 / TSSB82Q205	
Ref. No.	3281-S060	TSS601000 / TSS640100-1
Speed ratio	–	
RPM Max.	–	
Tool clamping	Ø20 / Ø16	

	Drill holder for sub spindle 25bar	
Product No.	TSSB81Q202	
Ref. No.	–	TSS646100
Speed ratio	–	
RPM Max.	–	
Tool clamping	ER16M	

	Drill holder for sub spindle 25bar	
Product No.	TSSB81Q201	
Ref. No.	–	TSS642100
Speed ratio	–	
RPM Max.	–	
Tool clamping	ER20M	

	Drill holder for sub spindle	
Product No.	TSSB82Q203	
Ref. No.	–	TSS601100
Speed ratio	–	
RPM Max.	–	
Tool clamping	Ø20	

	Turning holder for sub spindle	
Product No.	TSSB912201	
Ref. No.	–	TSS620100
Speed ratio	–	
RPM Max.	–	
Tool clamping	□12	

	Turning holder for sub spindle	
Product No.	TSSB910201	
Ref. No.	–	TSS620100-1
Speed ratio	–	
RPM Max.	–	
Tool clamping	□10	

	Turning holder for sub spindle	
Product No.	TSSB910202	
Ref. No.	–	TSS620100-2
Speed ratio	–	
RPM Max.	–	
Tool clamping	□10	

Symbology: Internal Coolant/BAR · Speeder · Reducer · Adjustable

TSUGAMI

M06, M08

TSUGAMI

	Axial drilling/milling unit		Radial drilling/milling unit	
Product No.	TSMC125001		TSMC2A2001	
Ref. No.	3295-Z92511-0101	TSIM2A1A15100	–	TSIA2B1A12200
Speed ratio	1:1		1:1	
RPM Max.	6000		5000	
Tool clamping	ER25UM		ER20A	

	Turning holder (cut-off)		Turning holder		Boring bar holder		Boring bar holder	
Product No.	TSMC925001		TSMC925002		TSMC801001		TSMC802001	
Ref. No.	3295-H260		3295-H210		3295-H202		–	
Speed ratio	–	TSLM60BA11A00	–	TSLM50BA22A00	–	TSM040100	–	TSM040200
RPM Max.	–		–		–		–	
Tool clamping	□25		□25		Ø32		Ø25	

	Boring bar holder		Boring bar holder (offset, for sub-spindle)		Boring bar holder (offset, for sub-spindle)		Boring bar holder (offset, for sub-spindle)	
Product No.	TSMC802004		TSMC802003		TSMC802002		TSMC802007	
Ref. No.	3297-H020		3295-H270		3295-H280		–	
Speed ratio	–	TSM040200-3	–	TSM040200-225	–	TSM040200-125	–	TSM040200-125(40)
RPM Max.	–		–		–		–	
Tool clamping	Ø25		Ø25		Ø25		Ø25	

Symbology

IC Internal Coolant/BAR Speeder Reducer Adjustable

CITIZEN

M32

	Axial drilling/milling unit		Axial drilling/milling unit	
Product No.	CTMC116302		CTMC116301	
Ref. No.	KSC110	CTM3204161100	KSC110-2X	CTM3204161100-1
Speed ratio	1:1		1:2 ⬆	
RPM Max.	5000		10000	
Tool clamping	ER16A		ER16A	

	Radial drilling/milling unit		Radial drilling/milling unit	
Product No.	CTMC2A1301		CTMC2A1302	
Ref. No.	KSE110	CTM3204162100	KSE310	CTM3204162100-1
Speed ratio	1:1		1:1	
RPM Max.	6000		6000	
Tool clamping	ER16A		ER16A	

	Turning holder		Boring bar holder		Boring bar holder	
Product No.	CTMC916301		CTMC801301		CTMC802301	
Ref. No.	CTF116	CTM901000	CDF101	CTM101000	CDF401	CTM102000
Speed ratio	–		–		–	
RPM Max.	–		–		–	
Tool clamping	□ 16		Ø25.4		Ø25.4	

CITIZEN

Symbology: Internal Coolant/BAR, Speeder, Reducer, Adjustable

CITIZEN

M16

	Axial drilling/milling unit		Axial drilling/milling unit		Axial drilling/milling unit	
Product No.	CTMC111102		CTMC111101		CTMC111103	
Ref. No.	MSC107BT	CTM1605111100-1	MSC106	CTM1605111100	MSC407	CTM1605111200
Speed ratio	1:1		1:1		1:1	
RPM Max.	6000		6000		6000	
Tool clamping	ER11A		ER11A		ER11A	

	Radial drilling/milling unit		Radial drilling/milling unit		Slotting unit	
Product No.	CTMC2A1102		CTMC2A1103		CTMC712101	
Ref. No.	MSE106	CTM1604112100	MST306	CTM1603112100	MSS345	CTM1606122100
Speed ratio	1:1		1:1		1:1	
RPM Max.	4000		3000		4000	
Tool clamping	ER11A		ER11A		Ø12.7xØ70	

Turning holder	Turning holder (cut-off)	Boring bar holder	Boring bar holder	Boring bar holder
CTMC910101	CTMC910102	CTMC801102	CTMC801101	CTMC802101
VTF110	VTF1310	VDF201	VDF501	VDF401
□ 10	□ 10	Ø19.05	Ø19.05	Ø19.05
CTM1601101100	CTM1602101100	CTM1603192100	CTM1603192100-1	CTM1603192200

Symbology: Internal Coolant/BAR, Speeder, Reducer, Adjustable

CITIZEN

L Series

	2-spindle double drilling/milling unit	3-spindle drilling/milling unit	3-spindle double drilling/milling unit	3-spindle double drilling/milling unit
Product No.	CTLA2B2301	CTLA2A3301	CTLA2B3302	CTLA2B3301
Ref. No.	– CTA541200-1	BSE307/BSE407/BSE607	BSE507/BSE707	GSE1810
Speed ratio	1:1	1:1 CTA441300-1	1:1 CTA541300-1	1:1 CTL546300-32
RPM Max.	6000	6000	6000	6000
Tool clamping	ER11A	ER11A	ER11A	ER16AM

	2-spindle double drilling/milling unit	3-spindle double drilling/milling unit	2-spindle double drilling/milling unit	3-spindle double drilling/milling unit
Product No.	CTLA2B2201	CTLA2B3202	CTLA2B2202	CTLA2B3206
Ref. No.	GSE3107 CTL541200	GSE3207 CTL541300-2	GSE3707 CTL541200-1	GSE3807 CTL541300-3
Speed ratio	1:1	1:1	1:1	1:1
RPM Max.	6000	6000	6000	6000
Tool clamping	ER11A	ER11A	ER11A	ER11A

	Drilling/milling unit	3-spindle double drilling/milling unit	Thread whirling unit
Product No.	CTLA2A3202	CTLA2B3101	CTLA545201
Ref. No.	GSE3210 CTL160300	GSE3607 CTL591300-1	– CTL260100
Speed ratio	1:1	1:1	1:1
RPM Max.	–	8000	6000
Tool clamping	Ø31	ER11A	Utilis no.119287

Symbology

Internal Coolant/BAR Speeder Reducer Adjustable

CITIZEN

CITIZEN

L Series

CITIZEN

	Drilling/milling unit	Double drilling/milling unit	Double drilling/milling unit	2-spindle drilling/milling unit
Product No.	CTLA2A1201	CTLA2B1302	CTLA2B1201	CTLA2A2202
Ref. No.	– CTL411000	– CTL541100	– CTL511000	– CTL441200
Speed ratio	1:1	1:3 ⬆	1:1	1:1
RPM Max.	6000	15000	6000	8000
Tool clamping	ER11A	ER11A	ER11A/ER11M	ER11A

	3-spindle drilling/milling unit	3-spindle double drilling/milling unit	3-spindle double drilling/milling unit	3-spindle drilling/milling unit
Product No.	CTLA2A3204	CTLA2B3203	CTLA2B3204	CTLA2A3201
Ref. No.	– CTL441300	– CTL541300-1	GSE1007 CTL541300	GSE910 CTAA4B63000
Speed ratio	1:1	1:1	1:1	1:1
RPM Max.	8000	8000	4000	4000
Tool clamping	ER11A	ER11A/ER11M	ER11A	ER16M

	3-spindle double drilling/milling unit	Gear hobbing unit ⬍	Gear hobbing unit ⬍
Product No.	CTLA2B3205	CTLA608202	CTLA608201
Ref. No.	GSE1307 CTL513000-1	– CTL130100-1	– CTL130100
Speed ratio	1:1	1:1	1:1
RPM Max.	4000	6000	6000
Tool clamping	ER11A	Ø8xØ25x12	Ø8xØ25x12

Symbology

IC Internal Coolant/BAR ⬆ Speeder ⬇ Reducer ⬍ Adjustable

CITIZEN

L Series

	Cross drilling/milling unit	
Product No.	CTAA116201	
Ref. No.	GSC1310/GSC1110	CTA1661100
Speed ratio	1:1	
RPM Max.	7000	
Tool clamping	ER16AM	

	Cross drilling/milling unit	
Product No.	CTLA116201	
Ref. No.	GSC1210	CTL861000
Speed ratio	1:1	
RPM Max.	8000	
Tool clamping	ER16M	

	Cross drilling/milling unit	
Product No.	CTLA116203	
Ref. No.	GSC1210	CTL866100
Speed ratio	1:1	
RPM Max.	8000	
Tool clamping	ER16	

	Cross drilling/milling unit	
Product No.	CTLA116202	
Ref. No.	GSC510/GSC1010	CTL166100
Speed ratio	1:1	
RPM Max.	8000	
Tool clamping	ER16A	

	Cross drilling/milling unit	
Product No.	CTLA116301	
Ref. No.	GSC310	CTL166100-1
Speed ratio	1:1	
RPM Max.	8000	
Tool clamping	ER16A	

	Cross drilling/milling unit	
Product No.	CTLA111206	
Ref. No.	GSC507-3X	CTL161100-2
Speed ratio	1:3 ⬆	
RPM Max.	18000	
Tool clamping	ER11A	

	Cross drilling/milling unit	
Product No.	CTLA111208	
Ref. No.	GSE307	CTL141100
Speed ratio	1:1	
RPM Max.	5000	
Tool clamping	ER11A	

	Cross drilling/milling unit	
Product No.	CTLA111202	
Ref. No.	GSC907	CTL111000
Speed ratio	1:1	
RPM Max.	6000	
Tool clamping	ER11A	

	Gear hobbing unit	
Product No.	CTAA608201	
Ref. No.	–	CTA130100
Speed ratio	1:1	
RPM Max.	3000	
Tool clamping	Ø8xØ25x15	

CITIZEN

Symbology

Internal Coolant/BAR · Speeder · Reducer · Adjustable

CITIZEN

L Series

CITIZEN

	Drilling/milling unit for sub spindle		Cross drilling/milling unit for sub spindle		Cross drilling/milling unit for sub spindle	
Product No.	CTLB111202		CTLB311205		CTLB316301	
Ref. No.	GSE3307/GSE3507/MSC507		GSS1330/GSS1430/GSS1530		GSE1910	
Speed ratio	1:1	CTL711000	1:1	CTK861100	1:1	CTL866100-1
RPM Max.	8000		6000		6000	
Tool clamping	ER11A		ER11A		ER16AM	

	Slotting unit for sub spindle	
Product No.	CTLB700201	
Ref. No.	–	CTL731000
Speed ratio	1:1	
RPM Max.	4000	
Tool clamping	Ø6/12.7xØ35	

Symbology

IC Internal Coolant/BAR Speeder Reducer Adjustable

CITIZEN

L Series

	Boring bar holder	**Boring bar holder**	**Boring bar holder**	**Boring bar holder**
Product No.	CTLA803305	CTLA803302	CTLA803303	CTLA802202
Ref. No.	GDF1601	–	–	GDF508 CTL140200-1
Speed ratio	– CTL14037800-25.4	–	–	–
RPM Max.	–	–	–	–
Tool clamping	Ø25.4	Ø19.05	Ø20	Ø19.05

	Boring bar holder	**Boring bar holder**	**Boring bar holder**	**Boring bar holder**
Product No.	CTLA801201	CTLA802201	CTLA803202	CTLA803203/CTLA803210
Ref. No.	GDF506 CTL101190	– CTL140200	– CTL140300	– CTL140300-2
Speed ratio	–	–	–	– CTL140300-6
RPM Max.	–	–	–	–
Tool clamping	Ø19.05	Ø19.05	Ø19.05	Ø19.05 / Ø20

	Boring bar holder	**Boring bar holder**	**Boring bar holder**	**Boring bar holder**
Product No.	CTLA803204/CTLA803206	CTLA803205	CTLA803101	CTLA803201
Ref.No.	GDF507 CTL140300-3	– CTL140300-8	– CTCA12JDA00	GDF607 CTL103000
Speed ratio	– CTL140300-10	–	–	–
RPM Max.	–	–	–	–
Tool clamping	Ø19.05 / Ø20	Ø20	Ø19.05	Ø19.05

CITIZEN

Symbology: Internal Coolant/BAR, Speeder, Reducer, Adjustable

CITIZEN

L Series

CITIZEN

	Turning holder		Turning holder		Turning holder	
Product No.	CTLA900055		CTLA900035		CTLA900060	
Ref. No.	GTF3712	CTL120155	–	CTL120135	–	CTL120160
Speed ratio	–		–		–	
RPM Max.	–		–		–	
Tool clamping	DC.T1103		VC.T1103		TGF32R 175 PR930	

	Turning holder		Turning holder		Turning holder	
Product No.	CTLA910101		CTLA912301		CTLA912201	
Ref. No.	–	CTL12100100	–	CTL2012100	GTF6312	CTL2212100
Speed ratio	–		–		–	
RPM Max.	–		–		–	
Tool clamping	□10		□12		□12	

	Turning holder for sub spindle		Turning holder for sub spindle		Boring bar holder for sub spindle	
Product No.	CTLB912301		CTLBA25000+COMBADL550		CTLBA25000+COMBAB0000	
Ref. No.	–	CTL620100-1	–	CTL620100	–	CTL601200
Speed ratio	–		–		–	
RPM Max.	–		–		–	
Tool clamping	□12		DC.T11T3		Ø3/4/5/6/8/9/10/12/16	

Symbology

IC Internal Coolant/BAR Speeder Reducer Adjustable

CITIZEN

A Series

	Drill holder (deep hole)		3-spindle double drilling/milling unit		Double drilling/milling unit	
Product No.	CTAA802201		CTAA2B3301		CTAA2B1201	
Ref. No.	–	CTA162000	GSE1710	CTA546300	BSE107	CTA511000
Speed ratio	–		1:1		1:1	
RPM Max.	–		4000		4000	
Tool clamping	ER16M		ER16AM		ER11M	

	Polygon unit		Boring bar holder		Boring bar holder	
Product No.	CTAA400201		CTAA803201		CTAA803202	
Ref. No.	–	CTA150100-1	–	CTA140300	–	CTA140300-1
Speed ratio	1:1		–		–	
RPM Max.	5000		–		–	
Tool clamping	–		Ø20		Ø19.05	

CITIZEN

Symbology: Internal Coolant/BAR, Speeder, Reducer, Adjustable

MIYANO

BND, BNE, BNJ, ABX

SP1 SP2 SP1 SP2

	Axial drilling/milling unit	
Product No.	BM45MI1A0101	
Ref. No.	2W785600	BMT4510102005500
Speed ratio	1:1	
RPM Max.	6000	
Tool clamping	ER20A	

	Axial drilling/milling unit	
Product No.	BM45MI1A0202	
Ref. No.	–	BMT4550101605500
Speed ratio	1:1	
RPM Max.	6000	
Tool clamping	ER16A	

	Radial drilling/milling unit 25bar	
Product No.	BM45MI1B0101	
Ref. No.	2W785550	BMT4520112005500
Speed ratio	1:1	
RPM Max.	6000	
Tool clamping	ER20A	

	Axial drilling/milling unit	
Product No.	BM38MI1A0103	
Ref. No.	DV70B001	BMT3810111610900
Speed ratio	1:1	
RPM Max.	6000	
Tool clamping	ER16A	

	Radial drilling/milling unit	
Product No.	BM38MI1B0104	
Ref. No.	DV70A000	BMT3820111610900
Speed ratio	1:1	
RPM Max.	6000	
Tool clamping	ER16A	

	Axial drilling/milling unit	
Product No.	BM45MI1A0102	
Ref. No.	2K700000	BMT4510302011600
Speed ratio	1:1	
RPM Max.	6000	
Tool clamping	ER20A	

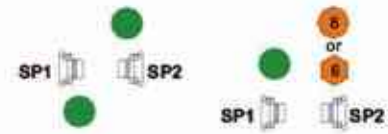
	Radial drilling/milling unit 25bar	
Product No.	BM45MI1B0102	
Ref. No.	2K701000	BMT4520312011600
Speed ratio	1:1	
RPM Max.	4000	
Tool clamping	ER20A	

Symbology

Internal Coolant/BAR Speeder Reducer Adjustable

MIYANO

BND, BNE, BNJ, ABX



	Turning holder		Turning holder		Turning holder	
Product No.	BM45MI2A2001		BM45MI2A2005		BM45MI2B2002	
Ref. No.	1X780100	MYB020100	1X780200	MYE900100	1X784100	MYD902000
Speed ratio	–		–		–	
RPM Max.	–		–		–	
Tool clamping	□20		□20		□20	

	Turning holder		Multiple holder		Boring bar holder	
Product No.	BM45MI2B2001		BM45MI2E0001		BM45MI2D2501	
Ref. No.	1X784600	MYB020200	1X780500	MYJ920100	1X780600	MYE040200
Speed ratio	–		–		–	
RPM Max.	–		–		–	
Tool clamping	□20		□20 Ø25		Ø25	

	Turning holder		Boring bar holder		Boring bar holder	
Product No.	BM38MI2A2006		BM38MI2D1501		BM38MI2D2503	
Ref. No.		MYJ920100-1	2K749001	MYJ940100	DV73B000	MYLB35BC32A00
Speed ratio	–		–		–	
RPM Max.	–		–		–	
Tool clamping	□20		Ø25		Ø25	

Symbology

Internal Coolant/BAR Speeder Reducer Adjustable

MIYANO

MIYANO

BNA

	Axial drilling/milling unit		Axial drilling/milling unit		Radial drilling/milling unit IC 25bar	
Product No.	BM38MI1A010		BM38MI1A0201		BM38MI1B0102	
Ref. No.	CG70A000	BMT3810101603700	CL70A000	BMT385010112200	CG70C000	BMT3820111603700
Speed ratio	1:1		1:1.66 ↑		1:1	
RPM Max.	8000		6000		6000	
Tool clamping	ER16A		ER11A		ER16A	

	Radial drilling/milling unit		Radial drilling/milling unit		Radial drilling/milling unit	
Product No.	BM38MI1B0101		BM38MI1B0202		BM38MI1B0201	
Ref. No.	CG70D000	BMT3820101602200	–	BMT384010162200-1	CG70E000	BMT384010162200
Speed ratio	1:1		1:1		1:1	
RPM Max.	6000		6000		6000	
Tool clamping	ER16A		ER11		ER16A	

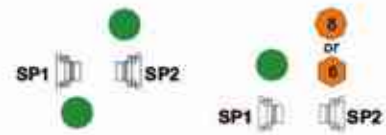
	Turning holder (cut-off)		Turning holder		Turning holder	
Product No.	BM38MI2A2001		BM38MI2A2003		BM38MI2B2001	
Ref. No.	CG73C000	MYA10201GC00	CG73M000	MYA10201GM00	CL73A001	MYA10203LA00
Speed ratio			–		–	
RPM Max.			–		–	
Tool clamping	□20		□20		□20	

Symbology

IC Internal Coolant/BAR ↑ Speeder ↓ Reducer ↕ Adjustable

MIYANO

BNA



	Turning holder		Boring bar holder	
Product No.	BM38MI2B2002		BM38MI2D2501	
Ref. No.	CG73L000	MYA10202GL00	CG73P000	MYA20252GP00
Speed ratio	–		–	
RPM Max.	–		–	
Tool clamping	□20		Ø25	

	Boring bar holder		Boring bar holder	
Product No.	BM38MI2D3501		BM38MI2D4501	
Ref. No.	CG73E000	MYA20253GE00	CL73B000	MYA20254LB00
Speed ratio	–		–	
RPM Max.	–		–	
Tool clamping	Ø25		Ø25	

BNC

	Turning holder		Turning holder		Axial drilling/milling unit	
Product No.	BM38MI2A2005		BM38MI2A2004		BM38MI1A0102	
Ref. No.	7S780100	MYC900100-R	7S780200	MYC900100	1U783000	BMT3810301605100
Speed ratio	–		–		1:1	
RPM Max.	–		–		6000	
Tool clamping	□20		□20		ER16A	

Symbology

IC Internal Coolant/BAR Speeder Reducer Adjustable

GANESH

CB Series

	Gear hobbing unit	
Product No.	CCBA610301	
Ref. No.	–	CCB130100
Speed ratio	1:1	
RPM Max.	6000	
Tool clamping	Ø10xØ30x20	

	Cross drilling/milling unit, 2-spindle	
Product No.	CCBA116301	
Ref. No.	–	CCB162000
Speed ratio	1:1	
RPM Max.	6000	
Tool clamping	ER16A	

	2-spindle drilling/milling unit	
Product No.	CCBA2A2301	
Ref. No.	–	CCB491200
Speed ratio	1:1	
RPM Max.	6000	
Tool clamping	ER11	

	4-spindle double drilling/milling unit	
Product No.	CCBA2B4301	
Ref. No.	–	CCB562400
Speed ratio	1:2	
RPM Max.	6000	
Tool clamping	ER20M*4/ER16M*4+Ø25*5	

	5-spindle double drilling/milling unit	
Product No.	CCBA2B5301	
Ref. No.	–	CCB566500
Speed ratio	1:2	
RPM Max.	6000	
Tool clamping	ER16A*5/ER11A*5+Ø25*5	

	5-spindle double drilling/milling unit	
Product No.	CCBA2B5302	
Ref. No.	–	CCB566500-1
Speed ratio	1:1	
RPM Max.	6000	
Tool clamping	ER16A*5/ER11A*5+Ø25*5	

	Slotting unit for sub spindle	
Product No.	CCBB700301	
Ref. No.	–	CCB730000
Speed ratio	1:0.75	
RPM Max.	3000	
Tool clamping	Ø6/12.7xØ45	

	Cross drilling/milling unit for sub spindle	
Product No.	CCBB316301	
Ref. No.	–	CCB761000
Speed ratio	1:1	
RPM Max.	5000	
Tool clamping	ER16	

	3-spindle drilling/milling unit	
Product No.	CCYA2A3501	
Ref. No.	–	CCY463000
Speed ratio	1:1	
RPM Max.	5000	
Tool clamping	ER16M	

Symbology: IC Internal Coolant/BAR · Speeder · Reducer · Adjustable

GANESH

CB

	Turning holder for sub spindle	Turning holder for sub spindle	Turning holder for sub spindle
Product No.	CCBB912302	CCBB912301	CCBB916301
Ref. No.	– CCB611120	– CCB62014200-12	– CCB62014200-16
Speed ratio	–	–	–
RPM Max.	–	–	–
Tool clamping	□12	□12	□16

	Drill holder for sub spindle	Boring bar holder for sub spindle	Drill holder for sub spindle
Product No.	CCBB81Q302	CCBB82Q302	CCBB82Q301
Ref. No.	– CCB64014200-20	– CCB601120	– CCB640300
Speed ratio	–	–	–
RPM Max.	–	–	–
Tool clamping	ER20A	Ø12	Ø25

GANESH

CT-52YM

	Axial drilling/milling unit	Axial drilling/milling unit 30bar	Gear hobbing unit
Product No.	BM65NK1A0101	BM65NK1A0102	BM65NK1F2221
Ref. No.	– BMT6510103209200	– BMT6510113209200	– BMT6507221100
Speed ratio	1:1	1:1	2:1
RPM Max.	6000	6000	3000
Tool clamping	ER32UM	ER32UM	Ø22.225xØ80x80

	Radial drilling/milling unit	Radial drilling/milling unit 30bar	Universal drilling/milling unit
Product No.	BM65NK1B0101	BM65NK1B0102	BM65NK1H1801
Ref. No.	– BMT6520103209200	– BMT6520113209200	– BMT6532102009200
Speed ratio	1:1	1:1	1:1
RPM Max.	6000	6000	6000
Tool clamping	ER32UM	ER32UM	ER20

GANESH

Symbology: Internal Coolant/BAR, Speeder, Reducer, Adjustable

NOMURA

YB Series

	Tool holder		Cross drilling/milling unit		2-spindle drilling/milling unit	
Product No.	NUYA0001		NUYA120201		NUYA2A2301	
Ref. No.	–	NUT160500	–	NUY262100	–	NUN446200
Speed ratio	–		1:1		1:1	
RPM Max.	–		6000		6000	
Tool clamping	–		ER20M		ER16M	

SB Series

	4-spindle drilling/milling unit		Cross drilling/milling unit, 3-spindle		2-spindle drilling/milling unit	
Product No.	NUSA2A4101		NUSA111102		NUSA2A2102	
Ref. No.	–	NUB261300-1	–	NUB261300	–	NUB441200
Speed ratio	1:1		1:1		1:1	
RPM Max.	6000		6000		6000	
Tool clamping	ER11		ER11M		ER11	

	Cross drilling/milling unit, 2-spindle		Cross drilling/milling unit, 3-spindle	
Product No.	NUSA116101		NUSA116102	
Ref. No.	–	NUB266200	–	NUB266300
Speed ratio	1.59:1		1:1	
RPM Max.	6000		6000	
Tool clamping	ER16M		ER16M	

NOMURA

Symbology: Internal Coolant/BAR, Speeder, Reducer, Adjustable

NOMURA

UB Series

Cross drilling/milling unit

Cross drilling/milling unit

Idler shaft

Product No.	NUUA116204		NUUA116201		NUUA100000	
Ref. No.	–	NUB246100	–	NUU266100	–	NUB200000
Speed ratio	1:1		1:1		–	
RPM Max.	6000		6000		–	
Tool clamping	ER16M		ER16M		–	

3-spindle drilling/milling unit

Non-guide bush device

Product No.	NUUA2A3202		NUU25500	
Ref. No.		NUN441300		NUU25500
Speed ratio	1:1		–	
RPM Max.	6000		–	
Tool clamping	ER11M		–	
			–	

NOMURA

Other

3-spindle drilling/milling unit

Cross drilling/milling unit

Product No.	NUJA2A3201		NUBA108201	
Ref. No.	–	NUJ441300	–	NUB248100
Speed ratio	1:1		1:1	
RPM Max.	6000		6000	
Tool clamping	ER11A	Price	ER8M	

Symbology

IC Internal Coolant/BAR Speeder Reducer Adjustable

NOMURA

Back Processing Static Tool Holder Shaft: Ø22, Ø23

	Drill holder for sub spindle	
Product No.	NUUB81Q201 / NUUB81Q203	
Ref. No.	–	NUAB22HBA00
Speed ratio	–	NUAB22HCA00
RPM Max.	–	
Tool clamping	ER16M	

	Drill holder for sub spindle	
Product No.	NUYB81Q301 / NUYB81Q302	
Ref. No.	–	NUDA22HBA00
Speed ratio	–	NUDA22HCA00
RPM Max.	–	
Tool clamping	ER16M	

	Drill holder for sub spindle (deep hole)	
Product No.	NUYB81Q304 / NUYB81Q303	
Ref. No.	–	NUDA22HBB00
Speed ratio	–	NUDA22HCB00
RPM Max.	–	
Tool clamping	ER16M	

	Turning holder for sub spindle	
Product No.	NUUB910201 / NUUB910202	
Ref. No.	–	NUN620100-2
Speed ratio	–	NUN620100-3
RPM Max.	–	
Tool clamping	□10	

	Turning holder for sub spindle ⬍	
Product No.	NUUBA22000+COMBADL550	
Ref. No.	–	NUN620100-1
Speed ratio	–	
RPM Max.	–	
Tool clamping	DC.11T3	

	Turning holder for sub spindle ⬍	
Product No.	NUUBA22000+COMBADR550	
Ref. No.	–	NUN620100-6
Speed ratio	–	
RPM Max.	–	
Tool clamping	DC.11T3	

	Turning holder for sub spindle ⬍	
Product No.	NUUBA22000+COMBAC1000	
Ref. No.	–	NUN620100
Speed ratio	–	
RPM Max.	–	
Tool clamping	□10	

	Reamer tool holder	
Product No.	NUUA0002 / NUUA0003	
Ref. No.	–	GPN112200
Speed ratio	–	GPN112300
RPM Max.	–	
Tool clamping	ER11M	

Symbology: Internal Coolant/BAR, Speeder, Reducer, Adjustable

HANWHA

XD20H

	Cross drilling/milling unit		3-spindle drilling/milling unit		3-spindle double drilling/milling unit	
Product No.	HWDA116201		HWDA2A3201		HWDA2B3202	
Ref. No.	–	HWX246100	–	HWX446300	–	HWX546300
Speed ratio	1:1		1:1		1:1	
RPM Max.	8000		6000		6000	
Tool clamping	ER16A		ER16M		ER16M/ER11M	

	2-spindle drilling/milling unit		3-spindle drilling/milling unit		3-spindle double drilling/milling unit	
Product No.	HWDA2A2203		HWDA2A3202		HWDA2B3204	
Ref. No.	–	HWX491200	–	HWX496300	–	HWX596300
Speed ratio	1:1		1:1		1:1	
RPM Max.	8000		8000		8000	
Tool clamping	ER11M		ER16M		ER16M/ER11M	

	Thread whirling unit		Boring bar holder		Boring bar holder	
Product No.	HWDA545205		HWDA803201		HWDA803202	
Ref. No.	–	HWX260100	–	HWX140300	–	HWX140300-1
Speed ratio	1:1		–		–	
RPM Max.	6000		–		–	
Tool clamping	Utilis no.119287		Ø25		Ø25	

HANWHA

Symbology

IC Internal Coolant/BAR Speeder Reducer Adjustable

HANWHA

XD20H

	Drilling/milling unit for sub spindle		Cross drilling/milling unit for sub spindle		Cross drilling/milling unit for sub spindle
Product No.	HWDB116201		HWDB311201		HWDB311202
Ref. No.	–	HWX746100	–	HWX731100-1	–
Speed ratio	1:1		1:0.55		1:1
RPM Max.	8000		4000		4000
Tool clamping	ER16A		ER11A		ER11A

	Cross drilling/milling unit for sub spindle		Slotting unit for sub spindle	
Product No.	HWDB316202		HWDB700201	
Ref. No.	–	HWX736100-1	–	HWX730100
Speed ratio	1:0.55		1:0.55	
RPM Max.	4000		4000	
Tool clamping	ER16A		Ø5/6/8/10/12.7/13xØ50	

XD20HII

	Cross drilling/milling unit		3-spindle double drilling/milling unit		3-spindle double drilling/milling unit
Product No.	HWDA116202		HWDA2B3207		HWDA2B3208
Ref. No.	–	HWX246100-1	–	HWX546300-2	– HWX591300-2
Speed ratio	1:1		1:1		1:1
RPM Max.	6000		6000		8000
Tool clamping	ER16A		ER16M/ER11M		ER11M/ER8M

HANWHA

XD32H

	3-spindle drilling/milling unit	3-spindle double drilling/milling unit	3-spindle drilling/milling unit
Product No.	HWDA2A3302	HWDA2B3302	HWDA2A3301
Ref. No.	– HWX446300-32	– HWX546300-32	– HWX496300-32
Speed ratio	1:1	1:1	1:1
RPM Max.	6000	6000	6000
Tool clamping	ER16M	ER16M/ER11M	ER16M

	Cross drilling/milling unit for sub spindle	Slotting unit for sub spindle	Slotting unit for sub spindle
Product No.	HWDB316301	HWDB700301	HWDB700302
Ref. No.	– HWX736100	– HWX730100-1	–
Speed ratio	1:0.77	1:0.77	1:0.55
RPM Max.	4000	4000	4000
Tool clamping	ER16A	Ø5/6/8/10/12.7 /13xØ60	Ø5/6/8/10/12.7 /13xØ50

HANWHA

XD12H

XD20V

	Slotting unit for sub spindle	Cross drilling/milling unit for sub spindle	Cross drilling/milling unit for sub spindle
Product No.	HWDB700101	HWDB311101	HWDB316201
Ref. No.	– HWX731000	– HWX731100	– HWX866100
Speed ratio	1:0.55	1:0.55	1:1
RPM Max.	4000	4000	6000
Tool clamping	Ø5/6/8/10/12.7/13xØ50	ER11A	ER16M

Symbology

Internal Coolant/BAR Speeder Reducer Adjustable

SWISTEK

JSL-32AB/42AB

	3-spindle double drilling/milling unit		3-spindle double drilling/milling unit ⇕	
Product No.	JSSA2B3401		JSSA2B3402	
Ref. No.	–	JSR546300-1	–	JSR596300-1
Speed ratio	1:1		1:1	
RPM Max.	6000		6000	
Tool clamping	ER16M/ER11M		ER16M/ER11M	

JSL-42RB/RBY

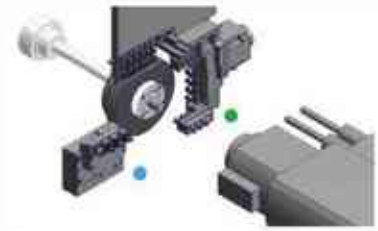
	Thread whirling unit ⇕		Slotting unit		Slotting unit		Gear hobbing unit ⇕	
Product No.	JSSA545401		JSSA712401		JSSA725401		JSSA616401	
Ref. No.	–	JSAA2L01000	–	JSR30100	–	JSR30100-1	–	JSR130100
Speed ratio	1:1		1:0.374 ⇓		1:0.374 ⇓		1:1	
RPM Max.	6000		4000		4000		6000	
Tool clamping	Utilis no.119287		Ø12.7xØ100		Ø25.4xØ110		Ø16xØ40x42	

	Drilling/milling unit for sub spindle		Cross drilling/milling unit for sub spindle ⇕		Cross drilling/milling unit for sub spindle		Cross drilling/milling unit for sub spindle
Product No.	JSSB120401		JSSB316401		JSSB316403		JSSB316402
Ref. No.	–	JSR762100	–	JSR730100	–	JSR866100-1	–	JSR866100
Speed ratio	1:1		1:1		1:1		1:1
RPM Max.	8000		4000		6000		6000
Tool clamping	ER20M		ER16A		ER16M		ER16M

Symbology: IC Internal Coolant/BAR ⇑ Speeder ⇓ Reducer ⇕ Adjustable

SWISTEK

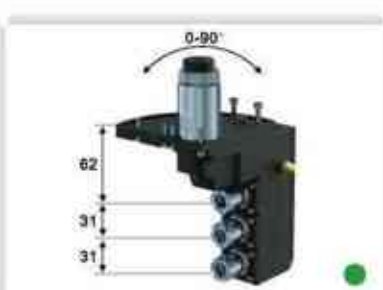
RB, SV, SW



SWISTEK

	2-spindle drilling/milling unit		2-spindle double drilling/milling unit		2-spindle double drilling/milling unit	
Product No.	STRA2A2204		STRA2B2202		STRA2B2302	
Ref. No.	54151	STR446200	66159	STR546200	10169	STJA5N22000
Speed ratio	1:1		1:1		1:1	
RPM Max.	6000		6000		5000	
Tool clamping	ER16M		ER16M/ER11M		ER20M/ER16M	

	3-spindle drilling/milling unit		3-spindle drilling/milling unit		3-spindle double drilling/milling unit	
Product No.	STRA2A3201		STRA2A3301		STRA2B3201	
Ref. No.	66151	STR446300	67151	STR446300-1	67161	STR546300
Speed ratio	1:1		1:1		1:1	
RPM Max.	6000		6000		6000	
Tool clamping	ER16M		ER16M		ER16M/ER11M	



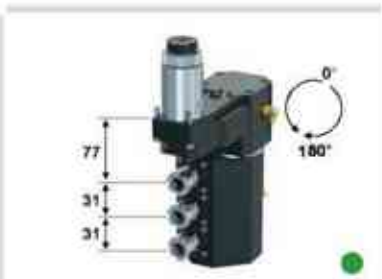
	3-spindle double drilling/milling unit		3-spindle drilling/milling unit		3-spindle drilling/milling unit	
Product No.	STRA2B3301		STRA2A3202		STRA2A3302	
Ref. No.	67159	STR546300-1	–	STR496300	–	STR496300-1
Speed ratio	1:1		1:1		1:1	
RPM Max.	6000		6000		6000	
Tool clamping	ER16M/ER11M		ER16M		ER16M	

Symbology: IC Internal Coolant/BAR · Speeder · Reducer · Adjustable

SWISTEK

RB, SV, SW

	2-spindle drilling/milling unit		3-spindle double drilling/milling unit		3-spindle double drilling/milling unit	
Product No.	STRA2A2202		STRA2B3202		STRA2B3302	
Ref. No.	–	STR496200	–	STR596300	–	STR596300-1
Speed ratio	1:1		1:1		1:1	
RPM Max.	6000		6000		6000	
Tool clamping	ER16M		ER16M/ER11M		ER16M/ER11M	



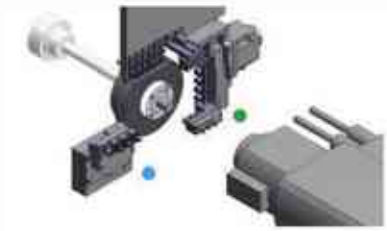
	2-spindle drilling/milling unit		3-spindle drilling/milling unit		3-spindle drilling/milling unit	
Product No.	STRA2A2303		STRA2A3203		STRA2A3207	
Ref. No.	–	STR496200-2	–	STR496300-2	–	STR496300-5
Speed ratio	1:1		1:1		1:1	
RPM Max.	6000		6000		6000	
Tool clamping	ER16M		ER16M		ER16M	

	Cross drilling/milling unit		Cross drilling/milling unit		Cross drilling/milling unit	
Product No.	STRA116202 / STRA120201		STRA116201		STRA111202	
Ref. No.	33150	STR161000	57155	STR166100	–	STR161100
Speed ratio	1:1		1:1		1:3	
RPM Max.	8000		8000		18000	
Tool clamping	ER16M / ER20M		ER16M		ER11A	

Symbology: Internal Coolant/BAR, Speeder, Reducer, Adjustable

SWISTEK

RB, SV, SW



SWISTEK

	Cross drilling/milling unit, 3-spindle	
Product No.	STRA111201	
Ref. No.	–	STR261300
Speed ratio	1:1	
RPM Max.	8000	
Tool clamping	ER11M	

	Slotting unit	
Product No.	STRA712201	
Ref. No.	54153	STR301000
Speed ratio	1:0.374	
RPM Max.	4000	
Tool clamping	Ø12.7xØ50	

	Thread whirling unit	
Product No.	STRA545203	
Ref. No.	68172	STR260100N
Speed ratio	1:1	
RPM Max.	6000	
Tool clamping	Utilis no.119287	

	Polygon unit	
Product No.	STRA400201	
Ref. No.	54191	STR150100
Speed ratio	1:1	
RPM Max.	3000	
Tool clamping	–	

	Gear hobbing unit	
Product No.	STRA613201	
Ref. No.	–	STR130100
Speed ratio	1:1	
RPM Max.	6000	
Tool clamping	Ø13xØ30x20	

	Idler shaft	
Product No.	STRA100000	
Ref. No.	57189	STR160000
Speed ratio	–	
RPM Max.	–	
Tool clamping	–	

	Boring bar holder	
Product No.	STRA803307	
Ref. No.	–	STR14036200
Speed ratio	–	
RPM Max.	–	
Tool clamping	Ø22	

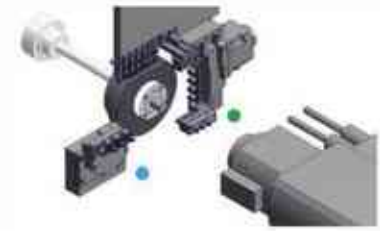
	Air tool holder	
Product No.	STRA0002	
Ref. No.	–	STR210300
Speed ratio	–	
RPM Max.	–	
Tool clamping	Ø22	

	Air tool holder	
Product No.	STBA0004	
Ref. No.	–	STB410100
Speed ratio	–	
RPM Max.	–	
Tool clamping	Ø22	

Symbology: Internal Coolant/BAR · Speeder · Reducer · Adjustable

SWISTEK

RB, SV, SW



	Air tool holder for sub spindle		Slotting unit for sub spindle		Slotting unit for sub spindle	
Product No.	STRB0001		STRB700201		STRB700202	
Ref. No.	–	STR14036200	69166/69165	STR731000	0R165	STR731000-1
Speed ratio	–		1:0.55		1:0.55	
RPM Max.	–		4000		4000	
Tool clamping	Ø22.8		Ø5/6/8/10/12.7/13xØ50		Ø5/6/8/10/12.7/13xØ50	

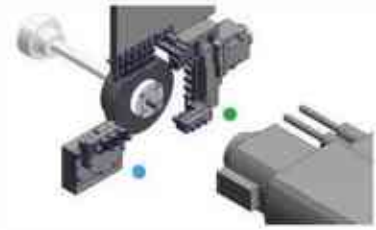
	Drilling/milling unit for sub spindle		Drilling/milling unit for sub spindle	
Product No.	STRB111208		STRB116202	
Ref. No.	54161	STR711000	57161	STR761000
Speed ratio	1:1		1:1	
RPM Max.	6000		6000	
Tool clamping	ER11M		ER16M	

	Drilling/milling unit for sub spindle		Drilling/milling unit for sub spindle, 3-spindle		Drilling/milling unit for sub spindle, 3-spindle	
Product No.	STRB111204		STRB108101		STRB111201	
Ref. No.	–	STR761200	–	STR748400	0E151	STR741300
Speed ratio	1:3		1:1		1:1	
RPM Max.	18000		8000		8000	
Tool clamping	ER11		ER8M		ER11M	

Symbology: IC Internal Coolant/BAR · Speeder · Reducer · Adjustable

SWISTEK

RB, SV, SW



SWISTEK

	Cross drilling/milling unit for sub spindle	
Product No.	STRB311201	
Ref. No.	–	STR731100
Speed ratio	1:0.55	
RPM Max.	4000	
Tool clamping	ER11A	

	Cross drilling/milling unit for sub spindle	
Product No.	STRB316202	
Ref. No.	–	STR736100
Speed ratio	1:0.77	
RPM Max.	4000	
Tool clamping	ER16A	

	Cross drilling/milling unit for sub spindle	
Product No.	STRB316201	
Ref. No.	0R151	STR861100-1
Speed ratio	1:1	
RPM Max.	6000	
Tool clamping	ER16M	

	Cross drilling/milling unit for sub spindle	
Product No.	STRB311101	
Ref. No.	–	STR861100-3
Speed ratio	1:1	
RPM Max.	6000	
Tool clamping	ER11	

	Cross drilling/milling unit for sub spindle	
Product No.	STRB311204	
Ref. No.	–	STR861100-2
Speed ratio	1:1	
RPM Max.	6000	
Tool clamping	ER11	

	Cross drilling/milling unit for sub spindle	
Product No.	STRB311301	
Ref. No.	–	STR861100-5
Speed ratio	1:1	
RPM Max.	6000	
Tool clamping	ER11	

	Cross drilling/milling unit for sub spindle	
Product No.	STRB311203	
Ref. No.	0E152	STR861100
Speed ratio	1:1	
RPM Max.	8000	
Tool clamping	ER11M	

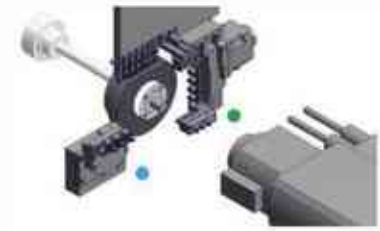
	Cross drilling/milling unit for sub spindle	
Product No.	STRB311202	
Ref. No.	–	STR861100-4
Speed ratio	1:1	
RPM Max.	6000	
Tool clamping	ER11	

	Drilling/milling unit for sub spindle	
Product No.	STRB111203	
Ref. No.	–	STR741300-1
Speed ratio	1:1	
RPM Max.	8000	
Tool clamping	ER11	

Symbology: Internal Coolant/BAR, Speeder, Reducer, Adjustable

SWISTEK

RB, SV, SW

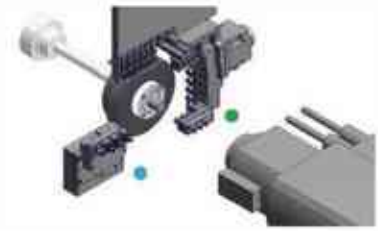


	Drill holder for sub spindle		Drill holder for sub spindle		Drill holder for sub spindle IC 25bar	
Product No.	STRB81Q309		STRB81Q307		STRB81Q304	
Ref. No.	–	STR646100-1	54121	STR646100-5	–	STR646100-2
Speed ratio	–		–		–	
RPM Max.	–		–		–	
Tool clamping	ER16M		ER16M		ER16M	

	Drill holder for sub spindle		Drill holder for sub spindle		Drill holder for sub spindle IC 25bar	
Product No.	STRB81Q305		STRB81Q313		STRB81Q303	
Ref. No.	–	STR642100	67122	STR642100-3	–	STR642100-1
Speed ratio	–		–		–	
RPM Max.	–		–		–	
Tool clamping	ER20M		ER20M		ER20M	

SWISTEK

RB, SV, SW



SWISTEK

	Drill holder for sub spindle		Drill holder for sub spindle	
Product No.	STRB81Q101		STRB81Q201	
Ref. No.	69125	STR64110010J	–	STR64110020R
Speed ratio	–		–	
RPM Max.	–		–	
Tool clamping	ER11M		ER11M	

※ER drill holder not included

※ER drill holder not included

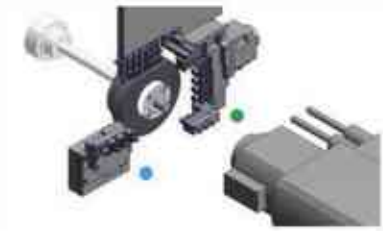
	Drill holder for sub spindle		Drill holder for sub spindle	
Product No.	STRB82Q201		STRB82Q202	
Ref. No.	–	STJ640100	–	STJ640200
Speed ratio	–		–	
RPM Max.	–		–	
Tool clamping	Ø16		Ø16	

	Boring bar holder for sub spindle		Boring bar holder for sub spindle	
Product No.	STRB82Q200		STRBA22000+COMBAB0000	
Ref. No.	–	STR601000	–	STR601200
Speed ratio	–		–	
RPM Max.	–		–	
Tool clamping	Ø3/4/5/6/8/9/10/12/16		Ø3/4/5/6/8/9/10/12/16	

Symbology: Internal Coolant/BAR, Speeder, Reducer, Adjustable

SWISTEK

RB, SV, SW



	Turning holder for sub spindle	Turning holder for sub spindle	Turning holder for sub spindle
Product No.	STRBA22000+COMB ADL550	STRBA22000+COMBADR550	STRBA22000+COMBADL350
Ref. No.	– STR620100-1	– STR620100-6	– STR620100-7
Speed ratio	–	–	–
RPM Max.	–	–	–
Tool clamping	DC.T11T3	DC.T11T3	VC.T1103

	Turning holder for sub spindle	Turning holder for sub spindle
Product No.	STRB912201	STRBA22000+COMBAC1000
Ref. No.	– STR620100-3	– STR620100-2
Speed ratio	–	–
RPM Max.	–	–
Tool clamping	Ø12	□10

	Turning holder for sub spindle	Turning holder for sub spindle	Turning holder for sub spindle
Product No.	STRB910201	STRB912203	STRB912204
Ref. No.	– STR620100	– STR62011200	– STR62011200-1
Speed ratio	–	–	–
RPM Max.	–	–	–
Tool clamping	□10	□12	□12

Symbology: Internal Coolant/BAR, Speeder, Reducer, Adjustable

DOOSAN

BMT-55

	Axial drilling/milling unit	Radial drilling/milling unit	Turning holder (cut-off)
Product No.	BM55DS1A0101	BM55DS1B0102	BM55DS2A2501
Ref. No.	– BMT5510102510400	– BMT5520102510400	– BMT5500A11A00
Speed ratio	1:1	1:1	–
RPM Max.	6000	6000	–
Tool clamping	ER25UM	ER25UM	□25

	Turning holder	Turning holder	Boring bar holder
Product No.	BM55DS2A2503	BM55DS2A2502	BM55DS2D1501
Ref. No.	– BMT5500A21A00	– BMT5500C21A00	– BMT5560C41A00
Speed ratio	–	–	–
RPM Max.	–	–	–
Tool clamping	□25	□25	Ø25

	Boring bar holder
Product No.	BM55DS2D1502
Ref. No.	– BMT5560C41B00
Speed ratio	–
RPM Max.	–
Tool clamping	Ø25

DOOSAN

Symbology

IC Internal Coolant/BAR Speeder Reducer Adjustable

NAKAMURA

WT-150, AS-200 (BMT-55)

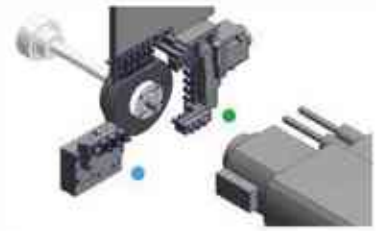
	Axial drilling/milling unit	Radial drilling/milling unit	Turning holder (cut-off)
Product No.	BM55NK1A0101	BM55NK1B0101	BM55NK2A2001
Ref. No.	– BMT5510102510800	– BMT5520102510800	– NKAA00BB11A00
Speed ratio	1:1	1:1	–
RPM Max.	6000	6000	–
Tool clamping	ER25UM	ER25UM	□25

WT-100, WY-100 (BMT-44)

	Turning holder	Turning holder	Boring bar holder	Boring bar holder
Product No.	BM44NK2A2001	BM44NK2B2001	BM44NK2D1501	BM44NK2D2501
Ref. No.	–	–	–	–
Speed ratio	–	–	–	–
RPM Max.	–	–	–	–
Tool clamping	□20	□20	Ø25	Ø25

NEXTURN

SA20D/SA32D



NEXTURN

	Cross drilling/milling unit	1 spindle drilling/milling unit	3 spindle drilling/milling unit
Product No.	NTA246100	NTA566100	NTA566300
Ref. No.	-	-	-
Speed ratio	1:1	1:1	1:1
RPM Max.	6000	6000	6000
Tool clamping	ER16A	Front: ER16 Back: ER11M	Front: ER16M Back: ER11M

	Thread Whirling Unit		Drilling/Milling Unit (SA20D Back Post)	Slotting Unit (SA20D Back Post)	
Product No.	NTA260100		NTA741100	NTA730100-20	
Ref. No.	-		-	-	
Speed ratio	1:1		1:1	1:0.55	
RPM Max.	6000	Thread(Max): M12	8000	4000	Saw OD(Max):Ø50 mm
Tool clamping	-	Helix Angle: ±20°	ER11A	-	Saw Arbor Shank:Ø8.0 mm

	Drilling/Milling Unit (SA32D Back Post)	Slotting Unit (SA32D Back Post)
Product No.	NTA746100	NTA730100-32
Ref. No.	-	–
Speed ratio	1:1	1:0.55
RPM Max.	8000	4000 Saw OD(Max):Ø50 mm
Tool clamping	ER16A	- Saw Arbor Shank:Ø12.0 mm 12.7 13.00

Symbology

IC Internal Coolant/BAR Speeder Reducer Adjustable